



CITY OF DUNDEE

REPORT

OF THE


MEDICAL OFFICER OF HEALTH

FOR THE

YEAR ENDING 31ST DECEMBER, 1937

DUNDEE :

PRINTED BY WILLIAM H. COX, 21 NORTH TAY STREET



Digitized by the Internet Archive
in 2016 with funding from
Wellcome Library

<https://archive.org/details/b28650645>

INDEX.

	PAGE
Introductory Letter	5
Summary of Vital Statistics	6
Comments on Vital Statistics	7
Medical Services	8
Maternity Services	9
Infant Welfare	12
Pre School Medical Services	12
School Medical Services	14
Orthoptic Training Centre	14
Child Guidance Clinic	14
Medical Attendance on Sick Poor	16
Duncarse Children's Home	17
Maryfield Hospital	17
Mental Health Services	18
King's Cross Hospital	19
Tuberculosis Services	20
Venereal Diseases	21
Infectious Diseases	22
Measles	22
Whooping Cough	22
Pneumonia	23
Scarlet Fever	23
Smallpox and Chickenpox	23
Diphtheria	24
Enteric Fever	24
Cerebro-Spinal Fever	25
Erysipelas	25
Dysentery	25

	PAGE
Puerperal Fever and Puerperal Pyrexia	25
Ophthalmia Neonatorum	26
Other Infectious Diseases	26
Bacteriological Laboratory Service	26
Diabetes and the Supply of Insulin	26
Blind Persons Act 1920 and 1938	26
Veterinary Services	32
Housing	34
Common Lodging Houses	36
Water Supply	36
Riverside Park Nuisance	36
Food Supply	37
Port Sanitary Administration	37
Medical Examinations for Superannuation, etc.	38
List of Statistical Tables and Charts.	39
Statistical Tables and Charts	41
Sectional Reports: —	
King's Cross Hospital—Dr. W. B. Clark's Report	77
Tuberculosis—Dr. Hunter's Report	89
Ashludie Sanatorium—Dr. H. Campbell's Report	94
Dundee Mental Hospital—Dr. A. A. Bell's Report	98
Maryfield Hospital—Dr. Macdonald's Report	113
Venereal Diseases Scheme—Dr. Keay's Report	118
Bacteriological Laboratory—Professor Tulloch's Report	129
Maternity Services—Dr. Margaret Scott Dickson's Report	152
Dr. Margaret Fairlie's Report	163
Dr. H. Gordon Campbell's Report	167
Pre-school and School Medical Services—Dr. J. A. Cuthbert's Report	177
Veterinary Inspection—Mr Spreull's Report	206
Sanitary Department—Mr Russell's Report	213

*Public Health Department,
Dundee, July, 1938.*

The Lord Provost, Magistrates and
Town Councillors of the City of Dundee.

Madam and Gentlemen,

I have the honour to submit the Annual Report
of the Public Health Department for the year 1937.

The opportunity is taken to thank all my colleagues
in the Department and all members of the staff for
their loyal co-operation and assistance throughout the
year.

I am,

Your obedient Servant,

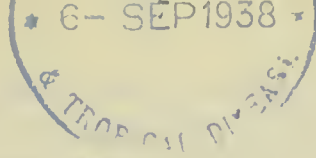
W. R. Burgess.

Medical Officer of Health.

Summary of Vital Statistics.

The following is a summary of the principal statistics for the years 1935, 1936 and 1937 :—

	1935.	1936.	1937.
Population	178,157	178,692	177,711
Number of Deaths (corrected)	2,346	2,526	2,672
Death-rate per 1,000 Population (corrected) ...	13.2	14.1	15.0
Deaths of Infants under 1 year	218	256	272
Infantile Death-rate per 1,000 Births	68	81	87
Marriage-rate per 1,000 Population	8.9	8.2	8.6
Number of Births registered (corrected)	3,195	3,171	3,125
Birth-rate per 1,000 Population	17.9	17.7	17.6
Illegitimate Birth-rate per 100 Births	7.5	6.7	5.9
Number of Deaths from Pulmonary Tuberculosis	119	107	102
Death-rate per 1,000 from Pulmonary Tuberculosis	.67	.60	.57
Death-rate from all forms of Tuberculosis ... ..	.89	.82	.82
Death-rate from the Principal Epidemic Diseases	.40	.57	1.06
Deaths from Enteric Fever	0	0	0



Annual Report — 1937

The general death-rate for last year was 15 per 1,000 population, compared with 14.1 in 1936 and 13.2 in 1935. The rise is to a small extent due to a drop in the Registrar-General's estimate of the City's population from 178,602 in 1936 to 177,711 in 1937. The principal reason, however, is a very marked rise in the number of deaths from 2,526 in 1936 to 2,672 in 1937. The first quarter of the year was unfortunate in that there occurred simultaneous outbreaks of whooping cough, influenza and primary pneumonia. During 1936 these three diseases were responsible for 219 deaths, but last year they were the certified cause of 406 deaths, whooping cough causing 51, influenza 113, and pneumonia 242. All ages shared in the rise except children between 1 and 15 years. The general death-rate for the whole of Scotland was 13.9 per 1,000 and for the large burghs 14.1.

The infantile death-rate was 87 per 1,000 births compared with 81 in 1936 and 68 in 1935. The rate for the whole of Scotland was 80, and for the large burghs taken together 90 per 1,000 births. The increase in the Dundee figure for 1937 over that for 1936 was due entirely to the outbreak of whooping cough, which caused 24 deaths among infants of less than one year. There were only 4 deaths due to this cause in 1936. In the early months of both years there was an epidemic of pneumonia among children, that disease causing 68 deaths in 1936 and 72 in 1937. The death-rate among infants in the early months of life fell, but that among children of from 6 to 12 months was very much higher. An infectious disease like whooping cough is much more damaging during the second half year of life than during the first.

The variation in the infantile mortality from year to year depends entirely on the incidence of such infectious diseases as pneumonia and whooping cough. It would seem as if the former was tending to increase in prevalence, and in the present state of knowledge little can be done to control either except by a steady improvement in environmental conditions and ensuring that proper medical and nursing treatment is available at home or in

hospital. The number of infant deaths from nutritional disorders shows a steady if slow decline, but the neo-natal death-rate shows little response to welfare activities. It is expected that when the new Maternity Services Scheme is functioning this death-rate as well as the maternal mortality rate will improve.

There were 307 deaths certified as due to malignant disease, giving a rate of 17.28 per 1,000. In 1936 the figures were 333 and 18.63.

The death-rate from all forms of tuberculosis was the same as last year — .82 per 1,000 population, while that from the pulmonary form declined from .60 to .57 per 1,000 population, the lowest figure yet reached. The tuberculosis (all forms) death-rate for the whole of Scotland last year was .74, and for the large burghs taken together .89 per 1,000 population. The pulmonary tuberculosis death-rate for the whole of Scotland during the same year was .56, and for the large burghs .69 per 1,000.

The maternal mortality rate fell from 6.94 per 1,000 live births in 1936 to 5.12 in 1937. The actual number of maternal deaths last year was 16, 6 of which were certified as caused by sepsis. The rate last year, while still far too high, is lower than it has been since 1932.

The death-rate from the principal epidemic diseases was 1.06 per 1,000 population, compared with .57 in 1936, and .40 in 1935. Whooping cough and influenza were responsible for the unusually high figure.

The birth-rate fell from 17.7 per 1,000 population in 1936 to 17.6 last year.

One of the gaps in the medical services has been partially filled by the coming into operation on 4th April of this year of the National Health Insurance (Juvenile Contributors and Young Persons) Act, 1937, which entitles boys and girls insurably employed under the age of 16 to medical benefit in the same way as other insured persons. They are not entitled to cash benefits. The Act also attempts to secure a certain continuity between the school medical services and insurance medical services by imposing on local authorities the duty of furnishing on request for the confidential use of an insurance practitioner such information

regarding the medical history of the young person whom the practitioner has accepted for treatment as may have been obtained in the course of routine medical inspection under the school medical services scheme.

It is usual to describe the medical services as having two weaknesses. The first is that they do not supervise adequately the pre-school child between the age of one and five years, and the second that there is no provision for children between fourteen and sixteen who have left school and have not entered the National Health Insurance Scheme. In actual fact, these are not the only weaknesses although they may be described as the worst of them. Others have been referred to again and again in annual and special reports, and these will not be removed until the National Health Insurance Scheme is made more comprehensive in depth and width.

In the following notes each service for which this Department is responsible is dealt with separately.

Following instructions contained in the minute of meeting of the Public Health Committee of date 21st June, 1937, I issued in September a special report on the Maternity Services (Scotland) Act, 1937. The administration of that Act in Dundee was very fully reported on, and the following recommendations were agreed to:—

Maternity
Services.

1. The Town Clerk should be instructed to send copies of this report to each of the following with requests for observations:—

- (a) The Secretary of the Local Branch of the Scottish Midwives' Association—[Section I. (3)]. It is also suggested that the City Chamberlain should prepare a short memorandum dealing with the compensation provisions of the Act, and that copies of this memorandum should be distributed to the midwives practising in the City.
- (b) The Secretary to the Directors of the Dundee Royal Infirmary—[Section I. (3) (8)].
- (c) The Secretary to the University Court of the University of St Andrews—[Section I. (8)].
- (d) The Secretary of the Dundee Sick Poor Nursing Society—[Section I. (3)].

- (e) The Secretaries of the Dundee Branch of the British Medical Association, and of the Dundee Panel Committee —[Section I. (5)].
- (f) All medical practitioners in special obstetrical and gynaecological practice in the City, directing their attention particularly to that section of the report headed "Obstetricians."

After considering any observations received from any of these Associations, the Committee will be in a position to formulate their proposals regarding the supply of midwives and the medical services.

2. The Committee should approve of the proposal that a woman shall not be entitled to the services of a medical practitioner otherwise than in association with a certified midwife nor to the services of a midwife otherwise than in association with a medical practitioner.

3. The principle that all doctors in general medical practice in the City be invited to participate in the scheme should be approved.

4. All the obstetricians in special practice in the City should be invited to act as obstetricians under the scheme.

5. The Committee should consider and decide on the proposal described in the report to set aside certain houses for occupation by midwives, each house being provided with a telephone.

6. The Medical Officer of Health should be authorised to transfer the ante-natal clinic from Polepark Day Nursery, Fleuchar Street, to the Child Welfare Centre at St Margaret's School, Ancrum Road.

7. The Committee should agree to the appointment of a visiting obstetrician and gynaecologist to Maryfield Hospital in succession to Dr R. C. Buist at a salary of £450 per annum to undertake the duties described in the report.

8. The Medical Officer of Health should be authorised to appoint a resident maternity services medical officer at Maryfield Hospital at a salary of £400 per annum, with board and lodging at the Hospital, to carry out the duties outlined in the report.

9. Consideration should be given to the section of the report dealing with the charges to be made to women for services under the Act and a scale of charges approved of.

10. The Medical Officer of Health should be authorised to incur the expenditure necessary to carry out, as described in the report, the alterations at 9 West Bell Street, and at the Child Welfare Centre, Nelson Street.

11. The Medical Officer of Health should be authorised to appoint a junior clerkess for clerical work under the scheme. The need for a second clerkess will be considered at a later date.

Meetings with any of the Associations or individuals mentioned in Recommendation No. 1 can be arranged if desired.

All the above recommendations were approved by the Public Health Committee and subsequently by the Corporation. Numerous consultations have been held with the Directors of the Dundee Royal Infirmary, the University Court of the University of St Andrews, the Dundee Branch of the British Medical Association, the Dundee Panel Committee and with representatives of midwives practising in the City. Copies of the special report were sent to these bodies and also to the Dundee Sick Poor Nursing Society and to all medical practitioners in specialist obstetrical and gynaecological practice in the City. Progress was interrupted while negotiations were reopened between the Department of Health for Scotland and the Scottish Branch of the British Medical Association on the subject of fees.

The requirements of the Act in regard to consultation with the various institutions have been satisfied, and the Public Health Committee are now in a position to formulate the proposals regarding the supply of midwives and the provision of medical services for submission to the Department of Health for Scotland. The Town Clerk and the Medical Officer of Health have been instructed to prepare draft proposals for consideration by the Committee.

It is essential that there should be no interference with the district work carried out from the Maternity Hospital of the Royal Infirmary, and methods of avoiding such interference were discussed at meetings with representative Directors. It was felt that no definite administrative step could be taken which would make

the position of the Infirmary absolutely secure and which would at the same time enable the Local Authority to carry out its duties under the Act. Accordingly it was agreed that the best procedure would be to make some financial adjustment so that the Infirmary would not suffer a monetary loss by adopting the scale of charges to patients approved by the Corporation. It was also agreed that the experience of the working of the scheme for some little time was necessary as a guide to future action. It should certainly be possible to assist the Infirmary in the training of midwives by permitting a pupil midwife in the later stages of her training to accompany whole-time midwives in the service of the Corporation, provided a pupil midwife is never permitted to visit a patient alone. Such a system of dilution should at least offset any reduction in the district work of the Infirmary if not actually increase the teaching resources of that Institution.

Discussions with medical practitioners did not meet with any success, and they finally intimated through their representatives their refusal to participate in the working of the Act.

Midwives in practice in the City welcomed the suggestions contained in the special report, and their representatives informed the Maternity Services Sub-Committee that the majority of the midwives were anxious to become whole-time servants of the Corporation.

The antenatal clinic at Polepark Day Nursery was transferred to the child welfare centre at St Margaret's, Ancrum Road, in February of this year in terms of recommendation No. 6.

The facilities provided for the care of infants under one year are fully taken advantage of. Indeed, certain of the clinics are so overcrowded that consideration will have to be given to the need for increasing the number of sessions. With the present staff that is impossible. Another doctor and at least one more health visitor would be necessary.

The clinics are reasonably good in the way of accommodation, etc., except that at Caldum Street, which is to be replaced by a new building in the grounds of King's Cross Hospital.

There is evidence that a large number of children admitted to school for the first time show various defects which require medical

attention and which make it difficult or impossible for them to derive full benefit from the educational facilities provided. There is also evidence that the percentage of defects in new school entrants is less among children who have, even during their first year of life, attended an infant welfare centre. It is argued—and it seems a sound argument—that if infants and children were continuously under skilled supervision at a child welfare centre or otherwise during the whole of their pre-school life, the defects discovered at the first school medical inspection would be very markedly reduced. Meantime, there is a tendency to concentrate on the infant under one, who, unless in a position to have private attention, is visited more or less regularly by a health visitor and invited to attend regularly at a child welfare centre. If the mother is working, it may spend the day in a day nursery. This tendency to concentrate on the infant arises from the need to use available resources to the best advantage. It is often said that we have to teach the people to use these resources. In Dundee, however, such teaching is not required. Our experience is that all the facilities provided are used to the full. The facilities available, however, are not sufficient to give all the attention needed during every one of the first five years, and as the first year is the critical one, special attention is given to it.

In January of this year a conference was held between the representatives of certain local authorities and of the Department of Health for Scotland and the Scottish Education Department in order to discuss the position. It was agreed that there was a need for more attention being paid to the pre-school child and that meantime this should be done by increasing the existing provision in the way of clinics, day nurseries, nursery schools and health visitors. In Dundee, the clinics in existence and proposed are sufficient in number but the staff is not. The day nurseries are five in number, one of these forming part of a nursery school. The Education Committee are meantime considering their policy in regard to nursery schools. Recently that Committee took over a voluntary nursery school, and another one is being provided. It is desirable that routine medical inspection should be carried out in all children at least once a year during pre-school life. In Dundee, the difficulty is one of staff.

With the law as it is at present we must attempt to carry the infant welfare activities up to the age of five and at the same time

bring down the school medical services to the children from two till five. In the future — the near future, I hope — the general medical practitioner will be responsible for carrying out routine medical inspection annually in pre-school children. Meantime, we must make full use of existing machinery.

School
Medical
Services.

Dr Kidd retired in August, 1937, and he was succeeded as Deputy Medical Officer of Health (Pre-School and School Medical Services) by Dr James A. Cuthbert, who was formerly Senior Assistant Medical Officer of Health. Dr Cuthbert's report on the work of this section of the Department is contained in this volume. It applies to the school year and not to the calendar year. It was hoped that the report year for school medical services would be made to coincide with the report year for all other health services, but it would appear that the central authorities have not agreed to this adjustment. In my view this is wrong.

The system of records and reporting is being revised in order to secure a reasonable uniformity throughout the country. The new system will come into operation at the beginning of the school year in August.

Orthoptic
Training
Centre.

The proposed orthoptic training centre for the treatment of squint in pre-school and school children was dealt with in detail in last year's annual report. It has not yet been possible to start this work because of the difficulty in obtaining an orthoptic trainer. These trainers are very scarce, and it is hoped that in the course of the year it will be possible to secure the services of one properly qualified for the post.

Child Guidance
Clinic.

In last year's annual report a note was made regarding the Child Guidance Clinic which is now actively functioning at the Training College, and which is in charge of a Committee consisting of representatives from the Corporation, the Mental Welfare Association, the Dundee Educational Trust and the St Andrews Provincial Committee for the Training of Teachers. The general functions of the Clinic were described. Briefly these are to provide parents, teachers, doctors and magistrates with a centre to which they may refer, for skilled psychological assistance, children and young persons who present problems of behaviour or development. It does not treat mental defectives or persons suffering from physical disorders. The sort of problems dealt with are educational difficulties, for example, backwardness and inability

to concentrate; night terrors; habits such as thumb sucking, bed-wetting, destructiveness, stammer, masturbation, nervous movements; difficulties of behaviour such as temper, tantrums, rebelliousness, lying, stealing, truancy; undesirable character traits and faulty social adaptation such as timidity, aggressiveness, unsociability, moodiness. The majority of the children referred to the clinic are between 2 and 16 years of age.

Three types of workers form the staff of a child guidance clinic — a psychiatrist, a clinical psychologist, and a specially trained social worker. The Dundee clinic is fortunate in having Miss Bowley as a psychologist, this appointment having been made by the Provincial Committee. The services of a properly trained social worker have been secured but the arrangement will end in September unless sufficient money is forthcoming to carry on. An application has been made to the Town Council for an annual grant sufficient to pay the salary of the social worker, and this matter is now under consideration by the joint sub-committee of the Education and Public Health Committees. The social worker is an essential element in the scheme. She renders service in connection with diagnosis, with treatment in the home and with treatment outside the home. In the matter of diagnosis the causes of the disorders must frequently be sought in the home and in the general social environment. It is the function of the social worker to study these environmental conditions with a view to throwing light on the nature not only of the disturbing factors but also of the child himself. Treatment in many cases consists in a change in the home conditions or attitude of the parents, and in nearly all cases, it is necessary that the parents should understand something of the nature of the treatment and participate in it. The social worker has therefore to communicate the advice of the psychiatrist and the psychologist to the parents explaining it to them and enlisting their co-operation. The children must cultivate healthy outside interests and the social worker arranges for this by bringing them into touch with various organisations such as scouts, clubs, etc. I feel sure that the Corporation will see that there will continue to be available to the Clinic this special sort of skill and service.

Certain psychiatrists are assisting the clinic on a part-time voluntary basis.

The report on the work of the clinic covering the period from 1st October, 1936, to 30th June 1937 shows that 78 children were

dealt with. These presented problems of intellectual disorders, habit disorders, behaviour disorders and nervous disorders.

Medical
Attendance on
Sick Poor.

Apart from certified mental disease, medical attendance for the sick poor, is provided either in their own homes or in the East House. If hospital treatment is required, patients are admitted to Maryfield Hospital, King's Cross Hospital or Ashludie Sanatorium, according to the nature of the illness and the available accommodation. Treatment in these Institutions is however not provided under the Poor Law (Scotland) Acts but under the Public Health (Scotland) Act, 1897, or the Local Government (Scotland) Act, 1929.

The domiciliary medical service is given by seven part-time doctors who are in general medical practice in the City. These doctors carry out a tremendous amount of work. Although their number was increased from five to seven early in 1937, a further increase is urgently necessary. I find that the number of attendances given to patients in their own homes or in the doctor's consulting rooms each year has increased very markedly. Thus, in 1935, the total attendances were 5,725; in 1936, 8,024; and in 1937, 10,351. The work has therefore increased in volume by nearly 100 per cent. in two years. It is for the Director of Public Assistance to explain the reasons for the increase, but as this Department must provide the medical service, it is essential that the machinery should be strengthened. This matter is under consideration at the moment by the Public Health and Public Assistance Committees. Within the last year, two medical practitioners accepted posts, but resigned within a few months on finding the work so heavy.

The figures given above do not represent all the work done by the outdoor medical officers. In addition, a doctor is in attendance every day at the clinic in the Public Assistance Department in order to examine applicants for public assistance.

In 1937 there were 2281 applications for medical relief made by 1917 males and 364 females on behalf of themselves or their families. These applicants had wives in 1808 cases and 6263 dependent children.

Medical and nursing attention to the sick poor residing in the East House is provided by the staff of Maryfield Hospital. A visit is paid by a doctor every forenoon and all inmates reporting sick

are examined and given appropriate treatment. This applies also to the mental wards in the East House. Twice daily a nurse from Maryfield visits the East House in order to issue medicines and apply dressings and bandages. Dr Macdonald, the Medical Officer at Maryfield Hospital, expresses himself as satisfied with conditions at the East House so far as they concern him.

A detailed annual medical report was submitted to the Public Assistance Committee and it revealed the customary high standard of skill and attention from the Matron and her staff.

Duncarse
Children's Home

There was a low incidence of ill-health in the Home during 1937 although the inevitable occurrence of a few cases of infectious disease temporarily checked the admission of new children. It will be an immense benefit when the probationary block is ready for occupation as the usefulness of the Home will be greatly increased. This block is likely to be available sometime this year.

The first section of the new Nurses' Home was opened in September, 1937, and is now fully occupied. The reconstruction of the north block was completed in May of this year. It provides a maternity unit and a children's section. Both are now in use.

Maryfield
Hospital.

The work has not yet begun on the remaining sections of the new nurses' home, on the new antenatal unit or on the alterations to the main buildings, etc., but the plans have been prepared and approved and the working drawings are now in the hands of the Quantity Surveyor, who is preparing the schedules.

Accommodation is now available for the number of resident medical officers authorised by the Corporation, and better provision has been made available for the steward and clerical staff and also for the matron and visiting medical staff.

The conditions at Maryfield Hospital in regard to buildings, equipment and staff are steadily improving. The progress is unfortunately very slow, and we would like to see the building alterations speeded up.

The structural alterations have now reached a stage which justifies the provision of additional equipment. We have no X-rays in the Hospital for the simple reason that we have had no place to put it. I should think that Maryfield Hospital is the only

general hospital in Scotland of any size which is not provided with X-rays. Patients who require to be X-rayed must attend at the houses of private radiologists in the City. This is a very unsatisfactory arrangement but there is no alternative. For the work done it is costly, not by reason of the fees to be paid but because ambulances and nurses must be used to convey the patients. The Public Health Committee have agreed to ask Dr G. H. S. Milln, the senior Radiologist in the Royal Infirmary, to submit a report on the installation of an X-ray plant at Maryfield Hospital. Dr Milln's report will deal not only with the amount and type of apparatus required but with questions of special staff, etc.

The details of the work carried out at Maryfield Hospital during the year under review are given in Dr Macdonald's report which is included in this volume.

**Mental
Health
Services.**

As stated in last year's annual report, the mental hospital services controlled by the Corporation so far as indoor accommodation is concerned consists of Dundee Mental Hospital, the mental wards at East House and the observation wards at Maryfield Hospital. The mental wards in the East House and the care (other than medical and institutional) training and disposal of lunatics and mental defectives including the maintenance of educable defectives are functions of the Public Assistance Department, while the education of educable defectives is the duty of the Education Department of the Corporation. The Child Guidance Clinic in the management of which the Corporation participates has been dealt with in another section of this report. It does not seem proper to regard it as a mental health service. Although it is concerned with the mechanism of the mind, its inclusion among the mental health services might interfere with its full use.

Dr A. A. Bell took up duty as Medical Superintendent of Dundee Mental Hospital on 1st August in succession to the late Dr W. Tuach Mackenzie. One of his earliest duties was to report on the possibility of introducing a 48 hours week for the nursing staff instead of a 60 hours week, which has been in operation for some time. His report on the subject, issued on 8th November, described the additional staff necessary, and the Public Health Committee agreed to his proposals. The 48 hours week began to function for the male staff on 6th May and for the female staff on 1st July of this year. It has not been easy to obtain the extra female staff necessary, and it will be difficult to keep the numbers

up to the standard required. Nurses are difficult to get in all hospitals, but particularly difficult in mental hospitals. Sufficient male staff can easily be got. The question of staff accommodation is also one which Dr Bell succeeded in solving after a great deal of thought and trouble. The arrangement made can only be considered as temporary. As suggested in last year's annual report Dr Bell has been instructed to prepare a comprehensive report dealing with the whole question of the accommodation at Westgreen including that for hospital patients, dormitory patients, recreation and staff.

The observation wards at Maryfield Hospital are always fully used. No special comment is called for this year except to emphasise the statements made in previous reports that this section of the mental health services requires to be developed by enlarging and improving the indoor accommodation and by the establishment of an outdoor unit.

In December, 1936, the Public Health Committee instructed the City Architect to prepare plans of a new pavilion of the cubicle type, including an operating theatre. He was also instructed to prepare plans for a new nurses' home, etc. These are now almost complete, and the whole scheme will be submitted to the Public Health Committee by the City Architect at an early date. The extended use which is made of the infectious diseases hospital nowadays makes the cubicle pavilion essential and we have been carrying on under very serious handicaps for the last few years owing to the difficulty of finding isolation accommodation for certain diseases. It is important that the Public Health Committee should consider this matter as urgent, and having approved the plans, should instruct that the work be carried out with all speed. The limited accommodation for the staff makes it exceedingly difficult to make full use of the Institution, and it is important that the erection of the new cubicle block and the new nurses' home should proceed simultaneously.

King's Cross
Hospital.

The year 1937 was a particularly busy one. The large number and extraordinary variety of cases made the working of the Institution exceedingly difficult. It was necessary to engage an unusually large number of private nurses in the early months of the year.

In January of this year, a joint report on sanatorium services was issued by Dr Hunter and myself. It dealt with the need for extensions at Ashludie Sanatorium and suggested that another 40 beds were required with a corresponding increase in staff accommodation and other service units. It also dealt with the question of co-operation with the County of Angus with a view to using to the best advantage the beds at Noranside Sanatorium and at Ashludie Sanatorium. This subject of co-operation with the County has been referred to in recent annual reports as also has the question of the need for additional beds for tuberculous cases. The Committee agreed to pass on to the County Council a copy of the report for their observations.

The above report also referred to the possibility of and the need for an orthopaedic scheme in Dundee, this matter having been the subject of a letter dated 4th November last which the Town Clerk received from the Secretary of the Dundee Invalid and Crippled Children's Aid Association. At the January meeting of the Public Health Committee, the Town Clerk reported that a census of cripples was being made by an organiser from the Central Council for the Care of Cripples in connection with the recent gift of Lord Nuffield. It is certainly very important that the various organisations at present engaged in this work in this part of Scotland should be co-ordinated and developed.

It is probable that an orthopaedic scheme would include an orthopaedic hospital and as the establishment of such a hospital in or near Dundee would have a very direct bearing on the development of Ashludie Sanatorium it was agreed that the final decision regarding the additions there should not be made until more information was available regarding the content of the proposed orthopaedic scheme. It is hoped, however, that there will not be too much delay as Dr Hunter is finding very great difficulty in placing his patients. The difficulty is emphasised by him in his annual report and also by Dr Campbell, the Senior Resident Medical Officer at Ashludie.

No comments are necessary regarding the Tuberculosis Dispensary in the Public Health Institute. The details of the work there are contained in Dr Hunter's section of this report.

From time to time reference has been made to the need for giving special consideration to the housing of families in which there is a tuberculous element. For a time, the City Factor kept

a special list of such families, which list was kept up-to-date by this Department. Unfortunately the arrangement did not work out according to plan, but recently the matter was raised at the Housing Committee and it is likely that tuberculosis will be considered as a factor seriously aggravating overcrowding and entitling affected families to primary consideration in the allocation of new houses.

Dr Harry Campbell, who succeeded Dr Gilbert Walker as senior resident medical officer at Ashludie in January, 1937, left the service of the Department in April of this year, having received a senior post in England.

No special comments are necessary regarding the accommodation at the Public Health Institute set aside for the treatment of venereal disease. It is proving adequate and there is always sufficient indoor accommodation in Maryfield Hospital for cases who cannot attend the Institute as out-patients.

Dr Keay's report on the work done for venereal diseases last year, contained in this volume, is of special interest and should be read by the general public and particularly by medical practitioners. The observations made by him on the subject generally and on particular aspects are impressive. The figures show a very definite rise in new cases due entirely to a 100 per cent. increase in the number of women found to be suffering from syphilis. In 1936, there were 104 such cases, while in 1937 there were 202.

The descriptive matter in the report emphasises that the change is not due to an increase in the incidence of venereal disease but because cases are being looked for in the antenatal clinics where a Wassermann test has become a regular part of the routine medical inspection carried out there. This matter was dealt with in last year's annual report and that it is important is demonstrated by the fact that of 536 antenatal cases tested during the last four months of 1937, 97, or 18.1 per cent. were found to be suffering from syphilis. Further, by enquiring into the families of these positive cases quite a number of children suffering from congenital syphilis was discovered. Thus, last year, 82 cases of congenital syphilis received treatment for the first time while in 1936 there were only 39 cases. The result of a whole year's work of this sort should be interesting. An important effect has been that the clinics are working under very high pressure and it has proved necessary to hold additional sessions on two afternoons per week.

The table detailing the sources of new cases is informative. According to it there were 85 cases from one antenatal clinic and 22 from another. 51 were traced by the medical officer in charge of the female clinic through female patients, and 6 were traced by the medical officer in charge of the male clinic through male patients. 243 were sent by medical practitioners and 787 came on their own initiative.

Dr Keay reports favourably on his experience of chemotherapy in gonorrhoea.

The number of patients discharged as completely cured of venereal disease during the year is recorded as 387. 351 patients ceased treatment before being certified as cured, there being a defaulter rate of 15 per cent.

Infectious Disease

The total number of notifications and intimations of cases of infectious disease was practically the same as for the previous year. The numbers were 4,816 in 1937 and 4,726 in 1936. During the year 312 cases of measles were reported compared with 1862 in 1936. Increased incidence of scarlet fever, chickenpox and whooping cough were recorded. The incidence of the other diseases show small fluctuations. Complete figures concerning the infectious diseases are given in the statistical section of the report, and the usual comments on individual diseases are made in the following paragraphs.

Measles.

In the course of the year intimations of 312 cases were received compared with 1862 in 1936 so that this disease again showed its usual tendency to recur every second year. In the last two months of 1937 there were 269 intimations received and the remaining 43 cases were spread evenly over the other ten months. 32 patients were removed to hospital and there was one death. Measles reappeared in November of 1937 and developed into the usual biennial epidemic which reached its peak in April of the current year.

Whooping Cough.

Intimations were received from schools, health visitors, etc., of 925 cases of whooping cough and of this number 701 occurred in the first quarter of the year. The figure for 1936 was 302. 166 cases were removed to hospital and there were 51 deaths—24 under one year, 24 between 1-5, 2 between 5-10 and 1 between 25-35. 38 of the deaths occurred in King's Cross Hospital, 3 in

the Royal Infirmary, and 10 at home. 33 of the deaths (including the one between 25-35) were complicated with pneumonia, 5 with pneumonia and convulsions, 1 with pneumonia, convulsions and marasmus, 2 with pneumonia and empyema, 1 with pneumonia and enteritis, 1 with pneumonia and marasmus, 4 with convulsions, 1 with marasmus, 1 with bronchitis and marasmus and 1 with enteritis. Only one death was certified to be due to whooping cough alone.

829 cases of acute primary pneumonia and 168 cases of acute Pneumonia influenzal pneumonia were notified during 1937. The corresponding figures for 1936 were 681 and 29. 682 cases of both forms of the disease received hospital treatment. 242 deaths were certified to be due to acute primary pneumonia and there were 113 influenzal deaths.

The incidence of scarlet fever showed a marked increase Scarlet Fever. during 1937 as compared with 1936. The figures are 815 and 362 respectively. During the first four months the disease was present in average incidence but thereafter it continued to increase until the peak was reached in November, when 156 cases were notified. Thereafter the disease quickly subsided and by May of this year the incidence had returned to normal. Cases were admitted to hospital on request and altogether 579 cases were hospitalised, 236 being treated at home. Five deaths were certified as due to this cause. There were no special localised outbreaks.

Very little work was done in connection with artificial immunisation. Details are as follows:—

Age Group	Dick Positive	Dick positive and immunised	Dick Negative	Total
Under 5 years,	9	17	58	84
5—15 years,	6	15	92	113
Over 15 years,	5	9	60	74
Totals,	20	41	210	271

No cases of smallpox occurred in the city during the year, Smallpox and
Chickenpox. but a number of persons who had been in contact with the disease on board ship were reported. These were visited and kept under observation during the quarantine period.

There were 663 intimations of cases of chickenpox as compared with 379 in 1936. All the cases were visited. 6 cases were admitted to hospital, three on account of other complications, 1 on account of environment, and two lascars were removed from aboard ship.

Diphtheria.

330 cases of diphtheria were notified, 316 being treated in hospital. Nine patients died. Last year there were 320 cases and 7 deaths. The circumstances attending the nine fatal cases were again investigated. Four were between 1 and 5 years of age; five between 5 and 10 years. Four of the cases died within 24 hours of admission and one with 43 hours. One case died 4 days after admission and two on the ninth day after admission. In six instances the parents delayed calling in medical aid and in three instances it would appear that there was delay in the administration of anti-toxin.

The facilities provided by the Department's anti-toxin service were again taken advantage of by the general medical practitioners. 24 doctors made applications in respect of 82 patients, and a total of 694,000 units was issued.

The work in connection with the artificial immunisation against diphtheria showed a further decrease. Altogether 167 persons were dealt with and of these 105 were Schick negative; 36 were found to be Schick positive and received one single injection of alum-precipitated toxoid, four received such injections without previous Schick testing, 22 were Schick tested and received three immunising doses of toxoid-anti-toxin-floccules. During the year there were four persons who failed to have the necessary course completed. 3 of these were Schick positive and failed to return for the immunising injections and one was Schick positive and failed to return after receiving only one immunising dose of the toxoid-antitoxin floccules.

Diphtheria toxoid (alum precipitated) is available in single doses at the Central Public Health Office and King's Cross Hospital to general practitioners for their private use at cost price. Only 11 doctors availed themselves of this service during the year.

Enteric Fever.

There were 10 notifications of enteric fever. All the patients were admitted to hospital. In 8 cases the diagnosis was accepted

—2 as typhoid fever and 6 as paratyphoid (B) fever. In the other two cases the ultimate diagnosis was gastro-enteritis and tabes mesenterica. There were no fatal cases in 1937 although the two typhoid cases died early in the present year. The sources of infection of the accepted cases were investigated. One typhoid fever case was too ill to be interrogated and her relations could not supply any information to account for the illness. The other typhoid fever case was a lascar off the S.S. "Manaar" and he had been infected before reaching this port. In three of the paratyphoid fever cases the source of infection might have been associated with the consumption of periwinkles. In the other three accepted cases the source of infection was not established.

Nine cases were reported to the Department in 1937 and all these received hospital treatment. Four of the cases were under 1 year, four between 1 and 5 years, and one was 14 years of age. There were five fatal cases. Cerebro-Spinal Fever.

Notification of 207 cases was received and of these 107 were admitted to hospital. 5 deaths were certified to be due to this cause. The figures for 1936 were 198 cases notified, 103 hospitalised and 15 deaths. Erysipelas.

The number of notifications of this disease in the City fell from the figure of 84 in 1936 to 47 in 1937. Only 12 cases were notified during the first half of the year and the greatest number (14) occurred during November. It is interesting to note that in the series of cases under consideration, those in the age group 15—25 years enjoyed the greatest immunity, while 88 per cent. occurred before that period. Dysentery.

The diagnosis is made on clinical grounds and in all cases confirmatory bacteriological evidence is sought.

46 cases were admitted to hospital for treatment, but only 18 were accepted as pure cases of dysentery. To this total there must be added five cases admitted with the erroneous diagnosis of gastro-enteritis. There were no deaths.

Notifications were received of 22 cases of puerperal fever and 47 of puerperal pyrexia, as compared with 34 and 40 respectively in 1936. Full details regarding these diseases are given in the maternity services section of this report. Puerperal Fever and Puerperal Pyrexia.

**Ophthalmia
Neonatorum.**

Fifty-four cases were notified, and of these, 13 were removed to hospital. Smears were taken in 42 cases—3 were positive, 17 were suggestive, and 22 were negative. In no case was there any impairment of vision.

**Other
Infectious
Diseases.**

Eight cases of recurring malaria were notified, and none of these required hospital treatment. One notification of undulant fever was received, and a special report concerning this case was submitted to the Department of Health for Scotland.

**Bacteriological
Laboratory
Services.**

Professor Tulloch's detailed report makes most interesting and instructive reading, and provides an indication of the great amount of work carried out on behalf of the Corporation by himself and his staff.

His willing co-operation and wide experience have been placed as before at the disposal of the various sections of the Department, and it is with pleasure that I express my appreciation of him in this report.

**Diabetes and the
Supply of Insulin**

At 31st December, 1936, there were 60 persons receiving insulin in terms of the Public Health (Scotland) Amendment Act, 1925. During 1937, there were 19 new applications, and these were all granted. In the course of the year, 5 patients died and 5 ceased using insulin, so that at the end of 1937 there were 69 names on the insulin register.

The total amount of insulin issued was 1,817 bottles of 5 c.cs. (100 units each), and 1,124 bottles of 5 c.cs. (200 units each). In addition to these figures, 4 patients were ordered 30 x 5 c.c. bottles (200 units) of protomine insulin (with zinc). The sum of £22 12s 8d was collected from patients towards the cost of the insulin supplied. In 1936 the issues were 1,676 bottles (100 units) and 1,046 bottles (200 units) and the sum recovered was £33.

**Blind Persons
Acts 1920 & 1938.**

The work which devolved upon the department in connection with the administration of these Acts was very heavy during the year and certain statutory and administrative changes have been made in the scheme as outlined in last year's report. The principal change was the coming into operation on 1st April of this year of the Blind Persons Act, 1938. The main advantages accruing to blind persons from this Act are:—(1) The lowering of the age to 40 years at which non-contributory old age pensions may

be paid to blind persons; (2) the disregarding of certain sources of income in assessing domiciliary assistance which were previously taken into consideration; and (3) the payment of assistance to dependants of blind persons under the Blind Persons Acts instead of under the Poor Law Acts.

The Public Health Committee made the necessary alterations consequent upon the new legislation and also agreed to several minor changes in the conditions regarding the granting of domiciliary assistance which were considered necessary in the light of experience gained. The revised scales of domiciliary assistance and the conditions under which such assistance is payable are as follows :—

The weekly income of blind persons shall be augmented to a sum of :—

Adult blind person,	27/6
Married couple (both blind),	40/-
Blind person aged 18 to 21 years, ...	20/-
Blind person aged 16 to 18 years, ...	15/-
Blind children—according to needs.	

Medical attendance and treatment will be provided by The Dundee Mission to the Outdoor Blind (reference Article VI. [6] of minute of meeting of the Public Health Committee of date 20th April, 1936) to persons in receipt of an allowance under above scale unless such person is entitled to receive the attendance and treatment under the National Health Insurance Acts.

Dependants of blind persons who apply for medical treatment shall be referred to the Public Assistance Department so that the services of an Outdoor Medical Officer may be obtained.

These allowances are also intended to cover all other necessities—clothing, boots, etc.

It is also agreed that the granting of domiciliary assistance should be subject to the following conditions :—

- (1) The applicant shall not appeal for alms, or beg, or act as a street musician in Dundee or elsewhere.
- (2) The applicant shall, if and when required—
 - (a) Undergo a course of technical education;
 - (b) Undergo re-examination of eyesight;

- (c) Accept of ophthalmic treatment which may lead to improved vision.
- (3) The applicant shall furnish full and correct information as to means, and shall immediately intimate to the Medical Officer of Health any change of circumstances, means or household income.

The Sub-Committee reserve the right to withhold the whole or any part of the monetary allowance in respect of failure to implement any of the foregoing conditions or for any such reason which, in the judgment of the Sub-Committee is sufficient.

QUALIFICATIONS FOR DOMICILIARY ASSISTANCE.

The blind person shall have been ordinarily resident within Dundee for a period of not less than 3 years immediately preceding the date of application for assistance, provided that the Sub-Committee may in exceptional cases waive this condition.

Where the blind person has not been ordinarily resident in Dundee for three years and the foregoing qualifications as to residence have not been waived, he shall be granted by the Sub-Committee an allowance at least equal to that which would have been payable to him if he had been a sighted applicant for public assistance under the Poor Law Acts.

CALCULATION OF MEANS.

The following sources must be disregarded in computing the amount of domiciliary assistance:—

- (a) The first 5/- a week of any sick pay from a Friendly Society;
- (b) The first 7/6 a week of any benefit under the National Health Insurance Act;
- (c) The whole of maternity benefit exclusive of any increase by way of additional benefits and of any second maternity benefit;
- (d) The first £1 a week of any wounds or disability pension;
- (e) One-half of any weekly payment by way of compensation under the enactments relating to Workmen's Compensation;

- (f) All money and investments treated as capital assets so far as their value does not exceed £25. (Where that value exceeds £25 but does not exceed £300 they are to be treated as equivalent to a weekly income of 1/- for every complete £25);
- (g) Where a person has an interest in the dwelling-house in which he resides; any sum which might be obtained by him by selling or borrowing money upon the security of that interest.

The following other factors will be taken into consideration in computing domiciliary assistance:—

1. Gross receipts, less expenses in respect of any business or any other occupation whatsoever.
2. Deductions will be made in respect of free lodgings and/or board:—
 Free Lodging — 7/6 per week for single person;
 10/- per week for married couple.
 Free Board and Lodging — 16/- per week for single person; 27/6 per week for married couple.
3. Board and Lodgings—Where the rate paid for board and lodgings is less than 16/- per week, the difference between the rate paid and 16/- shall be deducted.
4. Payments from Lodgers—For an employed lodger the sum of 5/- and for an unemployed lodger the sum of 2/6 shall be considered as income.
5. Rent—(a) Where the rent of applicant's house is less than 4/- per week, the difference between the rent and 4/- shall be deducted. (b) Where there are one or more children and the rent exceeds 4/- per week, the excess up to 6/6 shall be allowed—maximum payment 2/6 per week.
6. Earnings of Other Members of the Family—Deductions shall be made as follows—(a) In respect of first member of the family, 50% or earnings in excess of 20/- per week shall be deducted. (b) In respect of second and subsequent members of the family, 50% of earnings shall be deducted provided 15/- per week each is left.

7. If it appears that any blind person has directly or indirectly deprived himself of any income or property in order to qualify for assistance or assistance at a higher rate than that to which he would otherwise be entitled under the Scheme, that income or the yearly value of that property shall for the purposes of the Scheme be taken to be part of his income.

DEPENDANTS OF BLIND PERSONS.

The Committee agreed to pay 10/- per week for a dependent wife and 3/- per week for each dependent child.

In computing allowances to a blind person with dependants, the full scale amounts will first be taken and any adjustments in accordance with the method of calculating means will be made thereafter.

It should be noted that the benefits accruing from Friendly Society Benefit, National Health Insurance and Disability Pensions must be considered in respect of any member of the family and not only in respect of the applicant.

The revised scales will come into operation on 18th June, 1938.

There were 355 persons in receipt of assistance at 15th May, 1937, as compared with 386 persons on 15th May, 1938. The new domiciliary scale approved by the Town Council was put into operation on 18th June, 1938, when payments were made to 392 persons, 37 of whom also received allowances for dependants. It is anticipated that others, who previously were outwith the scope of the domiciliary scale will qualify for relief under the revised scales.

During the year ended 15th May, 1938, the Committee considered and disposed of 636 applications for domiciliary assistance.

As has already been stated, the granting of domiciliary assistance is subject to certain conditions. Whilst these conditions are generally observed, one case had to be dealt with by the Committee. In this instance a blind person in receipt of domiciliary assistance had, notwithstanding repeated warnings, continued to play a musical instrument on the streets, and the Committee were obliged to withdraw the allowance.

A suggestion was recently made by a member of Committee as to the practicability of paying domiciliary assistance by registered post, but in view of certain unforeseen difficulties the matter was dropped.

From 16th May, 1937, to 16th May, 1938, 33 sessions of the blind clinic were held, and a total of 222 persons were examined—187 from Dundee, 9 from the County of Angus; 18 from the County of Fife; and 8 from the County of Perth and Kinross. Of the Dundee cases, 160 were examined for the first time and 27 were re-examined. 123 Dundee cases were certified blind within the meaning of the Acts, whilst 64 were certified as being not blind. The total number of Dundee cases examined includes 15 who were physically unable to attend the clinic and who were examined in their own homes.

The total number of certified blind persons in Dundee at 1st April, 1938, is shown, in age groups, in the following table:—

0—2	3—4	5—15	16—17	18—29	30—39	40—49
M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
1 —	— 1	11 11	1 3	20 16	28 24	38 36
	50—69	70+	Total			
	M. F.	M. F.	M. F.	Total		
	113 141	61 142	273 372	647		

A Sub-Committee of the Public Health Committee met representatives of the Royal Dundee Institution for the Blind to consider an application by the latter for an increase in the per capita grant. This application had been made by the Directors consequent upon a request for increased wages by the Institution employees. At the October meeting of the Public Health Committee the Directors reported their decision to increase the wages of blind male employees from 44/- per week to 50/- per week and of the blind female employees from 28/6 to 33/-. At a subsequent meeting of the Sub-Committee with representatives of the Institution it was agreed, in view of the increased wages paid to the Institution workers to recommend that the per capita grant be increased from £55 to £80 per annum for a period of five years. This recommendation was approved by the Town Council, and the increase was given effect to as from the date on which the Institution employees were granted higher wages, i.e., 17th September, 1937.

The Committee also recommended that the school for the blind attached to the Institution should be taken over by the Educa-

tion Committee, and at a meeting of that Committee held later it was decided to adopt this recommendation. After the summer vacation this year the school will be under the control of the Education Committee.

The question of increased per capita grant to the Dundee Mission to the Outdoor Blind was also considered by the Public Health Committee whose recommendation to increase the grant from 35/- to 45/- was approved by the Town Council, and this decision will take effect from 16th May of the present year. It was also agreed to meet a deficit of over £250 on the accounts of the Mission for the year which ended 15th May, 1938.

I would like to again record my appreciation of the valuable help in this work rendered by Mr Maltman of the Dundee Mission, and Mr Cumming of the Royal Institution for the Blind.

Veterinary
Services.

On 1st April of this year the Veterinary Inspector, Mr Andrew Sprcull, was transferred from the service of the Corporation to that of the Ministry of Agriculture and Fisheries, in terms of the Agriculture Act, 1937 (Part IV.). On the same day, the following veterinary functions were taken over from the Corporation by the Ministry :—

- a. Diagnostic enquiries into any of the diseases of animals (including tuberculosis) scheduled under the Diseases of Animals Acts. This also involves the transfer to the Ministry of the whole of the administration of the Tuberculosis Order, including the slaughter of affected cattle and the payment of compensation to owners.
- b. The veterinary inspection of markets.
- c. Routine veterinary inspection of dairy herds.
- d. Examination of cattle by a veterinary inspector on receipt of a notification from the Medical Officer of Health that tuberculosis is caused or is likely to be caused by the consumption of milk produced by a herd, or that an infectious disease is caused or likely to be caused by the consumption of milk from a herd.
- e. Tuberculin testing and inspection of cattle for the purpose of the Milk (Special Designations) Orders (this does not affect the existing powers of the Local Authority to grant licences authorising the use of the designations "certified," "tuberculin tested" and "standard").

Certain powers and duties remain with the Corporation, namely :—

- A. a. The promulgation of the Ministry's Orders.
- b. The power to make certain local regulations—for example, internal regulations concerning the dipping of sheep.
- c. The issue of special authority for the holding of livestock markets in declared infected areas, or for the exposure of imported animals.
- d. The appointment of inspectors (other than veterinary) for the execution and enforcement of the Acts and Orders of the Ministry; the inspectors so appointed are required :—
 - i. To serve and enforce notices defining Infected Places and requiring detention and isolation of animals or the dipping of sheep in certain cases.
 - ii. The issue of licences for the movement of animals in infected or controlled areas under conditions prescribed in the Ministry's Orders.
- e. The local enforcement of all the general Orders of the Ministry, including the preventive diseases Orders providing for—
 - i. The paving, cleansing and disinfection of livestock markets and lairs;
 - ii. The cleansing and disinfection of railway and road vehicles with special facilities for the cleansing of vehicles at markets;
 - iii. The boiling of animal foodstuffs, the destruction of hay and straw packing materials, and the disposal of meat wrappers.

Independently of their duties as inspectors, where so appointed, the police are required to receive from stockowners notices of suspected cases of diseases, e.g., foot-and-mouth disease, swine fever, sheep scab, anthrax, parasitic mange, etc., and to transmit them to the proper authority.

- B. All functions regarding Milk and Dairies except in relation to veterinary inspection of animals.
- C. Functions in relation to Meat Inspection.
- D. Veterinary attendance on Corporation animals.
- E. Advice on any veterinary matter to any Department of the Corporation, e.g., Police Department on cruelty to animals.

The administration of the surviving duties as detailed above have been distributed among the various Departments of the Corporation. The Chief Constable was appointed Chief Inspector under the Contagious Diseases Animals Act, 1894 (Section 35), and along with the Town Clerk will be responsible for carrying out the duties remaining with the Corporation under the Contagious Diseases Animals Acts. The functions regarding milk and dairies, except in relation to veterinary inspection of animals, remain with the Medical Officer of Health and the Chief Sanitary Inspector. Mr Anderson, the Superintendent of the Slaughterhouse, who, along with the Medical Officer of Health, is a meat inspector, will be responsible for the inspection of meat at the Slaughterhouse and Meat Markets. We are particularly fortunate in having Mr Anderson's services at our disposal, as he is a very skilful meat inspector with a proper sense of responsibility. The public may be assured that no doubtful meat is sold in Dundee so long as it passes through the Dundee Slaughterhouse and so long as Mr Anderson is in charge there. Authority has been granted to call in a private veterinary surgeon in any special circumstances when the Superintendent or the Medical Officer of Health is of opinion that that step is advisable. The veterinary care of animals belonging to the Corporation is a matter for the chief official of each Department, the general arrangement being for a private veterinary surgeon to be called in on a fee per visit basis. This is being done at the Corporation farms at Dundee Mental Hospital, but the routine veterinary inspection and tuberculin testing of the animals there are of course functions now falling to be carried out by the State veterinary officials.

Housing.

Full details regarding housing are contained in the report of the Chief Sanitary Inspector, to which reference should be made.

Some 1,819 houses were dealt with in the course of the year by closing order, demolition order, undertaking or clearance area in terms of the Housing Acts. This represents a tremendous amount of work, but unfortunately the amount of work is no measure of the results achieved as it was impossible to provide anything like sufficient alternative accommodation for the families occupying the houses concerned. That there are in the City 3,194 houses labelled in terms of the Housing Acts as unfit for human habitation but still in occupation by 3,238 families is evidence that work and results do not keep pace with one another.

Reasons of finance led the Corporation to depart from their

decision to deal with the John Street area under the re-development sections of the Housing (Scotland) Act, 1935. The worst of the houses are now being dealt with under the 1930 Act.

It is impossible to provide new houses at the same rate as we are dealing with old houses. To do so last year would have meant the completion of 1,891 dwellings. In actual fact, the number made ready for occupation by the Corporation was 376, compared with 725, 406 and 345 respectively in the three preceding years. In addition, 326 new houses were made available by private enterprise, but these houses are not the sort which will directly at any rate help in solving the problem in which we are particularly interested. Undoubtedly they do so indirectly, and private enterprise must be considered as having made a very valuable contribution towards the relief of the housing difficulty.

It is easy to say that no progress is being made in the solution of the housing problem, because while we dealt with 1,891 old houses the Corporation only provided 376 new houses and private enterprise 326. Numerically, little progress has been made, and the rate of building must be speeded up. It is satisfactory to hear that the wooden house may prove to be a feasible proposition in this country as its adoption could apparently go a long way towards closing the gap between the two aspects of the housing problem—the removal of the unhealthy house and the provision of healthy ones. The progress in housing must not, however, be considered in terms of numbers alone. There is no doubt that although the numbers dealt with on the one hand and provided on the other are comparatively small the standard of housing in the City generally is steadily improving, and there is a continuous change for the better in the size distribution. These are important factors, and by improving the environmental conditions make for better health.

I understand that there are now under construction by the Corporation 862 houses. If these are completed before the end of the year and a scheme for the erection of wooden houses adopted and commenced, the prospects should be brighter.

It cannot be said that any definite action has been taken to relieve overcrowding. It has been reduced to a small extent by reason of the fact that practically all the unhealthy houses which have been vacated have not only been unfit structurally but have

also been overcrowded. The pointage system at present in use for allocating houses limits the selection of tenants to those who occupy insanitary houses, as the Department has authority to assess only these houses which have been dealt with by demolition order, etc. A family overcrowding a house structurally fit is not therefore at the moment entitled to a new house. The Corporation, however, are tending to depart from this policy, and have recently favoured the idea of giving new houses to overcrowded families occupying fit houses if in the family there is a tuberculous element. The method of allocating houses is due for review in order that overcrowding *per se* may have its fair share in the measures which are being adopted to deal with the housing problem as a whole.

Common
Lodging Houses.

Since last year the number of common lodging-houses on the register has been reduced from 10 to 4. Of the six removed, five were dealt with under the Housing Acts, and the other was voluntarily closed by the keeper. The existing premises are for the reception of men only, and to accommodate women there remains the Shelter of the Salvation Army authorities.

Water Supplies.

In February of this year special reports on the question of the filtration of Lintrathen water were submitted to the Water Committee by the Water Engineer, the City Bacteriologist, the City Analyst and the Medical Officer of Health. These were remitted to a sub-committee which now has them under consideration.

Riverside Park
Nuisance.

This nuisance was referred to in last year's annual report, and the means necessary to abate it were emphasised. Action has been taken along the lines suggested, and now it is forbidden to deposit putrifiable matter of any sort there. Steps are also being taken to extend the sewer which empties immediately to the west of the dump to ensure that sewage will not be swept into the artificial basin by the incoming tide. The breakwater is also being built up in such a way as to retain a fresh supply of sea water in the basin at each tide. The east basin, which gave rise to trouble last year, has been filled up with clean refuse, and this year there is no nuisance.

This dump at Riverside Park is convenient and is liable to be used by anyone requiring to get rid of waste matter. It is essential that close supervision be exercised in order to prevent the recurrence of a nuisance which can only be described as a disgrace to the City.

Reference should be made to the Chief Sanitary Inspector's Food Supply report for particulars of the work done in the administration of the various statutes bearing on food supply. Tables XLIX. to LIII. comprise details of the work of the Superintendent of the Slaughterhouse under the Public Health Meat Regulations (Scotland), 1932.

This has been the first complete year during which the Milk (Special Designations) Order (Scotland), 1936, has been in operation. Samples of milk continue to be taken either at the place of production or at some stage in the course of distribution. Fully twice as many bacteriological examinations were made compared with last year (158/77) on milks, comprising 24 sold as Certified, 14 as Tuberculin Tested, 6 as Pasteurised, 112 as Sweet Milk, and 2 as Sterilised milk. The results obtained showed that six samples of Certified milk did not comply with the specified standards, and that three each of T.T. and Pasteurised milks were unsatisfactory. A high degree of cleanliness was noted in tests made on ordinary sweet milk apart from six specimens that were dirty in the bacteriological sense.

Both producers and retailers are informed of the tests made on their milks, and where unsatisfactory findings have been made a genuine effort is usually made to improve the cleanliness of the milk.

Living tubercle bacilli were recovered from a sample of alleged Certified milk. The infected animal was identified and destroyed.

In the coming year the number of bacteriological examinations of milk will be increased to some 400. Cleaner milk is the aim of all producers, and with the greater frequency of examinations it is expected that even more strict precautions against contamination will be taken by those engaged in the handling of milk.

In Tables XXXVII., XXXVIII., and XXXIX. are presented full particulars of the port sanitary work.

Port Sanitary
Administration.

The total shipping entering the port was just under a million tons, although that figure was exceeded last year.

All vessels arriving at Dundee from foreign ports included in the list of infected ports issued by the Ministry of Health, are inspected by the medical officer. Out of 102 such arrivals, 16 were ships that had reached this port direct from an infected area, and in these cases all the members of the crew were subjected to medical examination.

Eleven cases of illness, including 10 of infectious disease were removed to hospital, viz. :—

KING'S CROSS HOSPITAL—

1. Four British, suffering from influenza.
2. Two Lascars, suffering from chickenpox.
3. One Lascar, suffering from typhoid fever.
4. One Arab, suffering from erysipelas.

ROYAL INFIRMARY—

1. Two Lascars, suffering from pneumonia.
2. One Lascar, suffering from duodenal ulcer.

The masters of all vessels are informed of the free facilities available to seamen for the treatment of venereal disease. A number of men became temporary out-patients of the department during their stay in **port**.

It is satisfactory to note that the number of nuisances and defects detected aboard is much reduced compared with previous years. No deratisation certificates were granted during the year, but 32 deratisation exemption certificates were issued. Only 80 rats were recovered by trapping from 21 vessels.

Several ships requiring a new certificate were allowed to proceed to their home ports, since a proper inspection for the presence of rats was not possible because of the amount of cargo remaining in the holds.

The execution of the Regulations has been conducted in a friendly atmosphere throughout the year thanks to the willing co-operation of the staff of the Chief Sanitary Inspector, the Customs Officials, the Tay Pilots and the ships' officers.

Some 336 medical examinations were carried out by members of the medical staff of this Department, as follows :—

Admission into the Superannuation Scheme,	260
Admission into the Grading Scheme,	36
Examination of employees thought to be unfit for further service but not yet at retiring age,	13
Examination of employees on sick leave,	13
Examination of employees who sustained accidents while at work,	8

Medical
Examination for
Superannuation,
etc.

STATISTICAL SECTION.

LIST OF TABLES AND CHARTS

- Table 1. Age and Sex Distribution of Population, 1937.
- Table 2. Estimated Population in various wards, 1937.
- Table 3. Deaths (all causes) at various age periods, 1937.
- Table 4. Death-rates at various age periods (from all causes) each year, 1933-1937.
- Table 5. Death-rate (from all causes) each month during the years 1933-1937.
- Table 6. Death-rate (from all causes) in various wards each year since 1922.
- Table 7. Birth-rate in various wards each year since 1922.
- Table 8. Infantile Death-rate (per 1,000 births) in various wards each year since 1922.
- Table 9. Death-rate in various wards each year since 1922 from principal Epidemic Diseases.
- Table 10. Pulmonary Tuberculosis Death-rate in various wards each year since 1922.
- Table 11. Tuberculosis (all forms) Death-rate in various wards each year since 1922.
- Table 12. Certified causes of death at the various ages under 1 year for 1937.
- Table 13. Infant Mortality from various groups of causes each year from 1916.
- Table 14. Infant Mortality from all causes at various age periods since 1916.
- Table 15. Deaths and Death-rates from various groups of causes each year since 1933 (all ages).
- Table 16. Number of illegitimate births, number of deaths (under 1 year) of illegitimate infants and death-rate per 1,000 illegitimate births since 1920.
- Table 17. Five-yearly average annual death-rates per 100,000 population from certain of the Infectious Diseases, 1876-1925, and number of deaths and death-rates per 100,000 each year since 1926.
- Table 18. Five-yearly average annual Case Mortality (per cent.) from certain Infectious Diseases, 1891-1925, and number of cases notified and intimated, number of deaths, and case mortality each year since 1926.
- Tables 19, 20, and 21. Malignant Diseases.

- Table 22. Five-yearly average annual Death-rates per 100,000 population, 1876-1925, and number of Deaths and Death-rates per 100,000 each year since 1926, from the Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).
- Table 23. Five-yearly average annual Death-rates per 100,000 population, 1876-1925, and number of Deaths and Death-rates per 100,000 each year since 1926, from Diabete Mellitus.
- Tables 24 and 25. Influenza.
- Table 26. Infectious Diseases—Number of Cases of each disease notified and reported in Dundee during the year 1937. Also number removed and number not removed to Hospital.
- Table 27. Monthly notifications and intimations of Infectious Disease, Dundee, 1937.
- Table 28. Tuberculosis—Notifications and Deaths with corresponding rates per 1,000 population at various age-periods each year since 1921.
- Table 29. Tuberculosis—Notifications and Deaths, with corresponding rates per 1,000 population, for each year since 1913 (since notification became compulsory).
- Table 30. Tuberculosis—Notifications and Deaths, with corresponding rates per 1,000 population in various wards, 1937.
- Table 31. Pulmonary Tuberculosis—Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1915.
- Table 32. Pulmonary Tuberculosis—Deaths in Institutions each year since 1928.
- Tables 33, 34, and 35. Maternal Mortality, Birth, Illegitimate Birth, and Marriage Rates.
- Table 36. Vaccination, 1921-1936.
- Tables 37, 38, and 39. Port Sanitation.
- Table 40. Bacteriological Laboratory, 1927-1937.
- Table 41. Disinfection, 1937.
- Table 42. Factories, Workshops, and Workplaces, 1937.
- Table 43. Dundee Infant Hospital, 1937.
- Tables 44, 45, 46, 47, and 48. Venereal Diseases Scheme.
- Tables 49, 50, 51, 52, and 53. Unsound Food.
- Chart No. 1. Death-rate per 1,000 population, 1891-1937.
- Chart No. 2. Infant Mortality, 1891-1937.
- Chart No. 3. Pulmonary Tuberculosis Death-rate per 1,000 population, 1891-1937.
- Chart No. 4. Birth-rate per 1,000 population, 1891-1937.
- Chart No. 5. Vital Statistics of the various wards, 1937.

TABLE I.

AGE and SEX DISTRIBUTION of POPULATION, 1937.

Population (estimated by Registrar-General), 177,711.

Percentage of Males to total population (Census, 1931)	...	44.9%
„ „ Females „ „ „ „	...	55.1%
Estimated Sex Distribution for 1937—Males	...	79,792
Females	...	97,919

Age Groups.	Percentage to total at all ages (Census 1931).		Estimated Age and Sex Distribution for 1937.		
	Males	Females	Males.	Females.	Both Sexes
0-5	9.7	7.7	7,740	7,540	15,280
5-10	10.2	8.5	8,139	8,323	16,462
10-15	8.9	7.3	7,102	7,148	14,250
15-25	18.1	17.2	14,442	16,842	31,284
25-35	15.2	15.8	12,128	15,471	27,599
35-45	11.9	13.2	9,495	12,925	22,420
45-55	10.7	11.8	8,538	11,555	20,093
55-65	9.1	9.9	7,261	9,694	16,955
65-75	4.8	6.1	3,830	5,973	9,803
75-85	1.3	2.2	1,037	2,154	3,191
85 and over	.1	.3	80	294	374
All Ages	100.0	100.0	79,792	97,919	177,711

TABLE II.

Estimated Population in various Wards, 1937.

WARD.	Population (Census 1931).	Percentage to total Population (Estimated).	Estimated Population for 1937.
I. ...	16,846	9.6	17,060
II. ...	11,698	6.7	11,907
III. ...	16,499	9.4	16,705
IV. ...	17,428	9.9	17,594
V. ...	24,720	8.2	14,572
VI. ...	17,240	9.8	17,416
VII. ...	22,355	7.7	13,684
VIII. ...	18,975	10.8	19,193
IX. ...	19,092	10.9	19,370
X. and XI.	10,732	6.1	10,840
XII ...	—	10.9	19,370
Totals	175,585	100.0	177,711

TABLE III.

Return Showing the Causes of Death (Corrected for Transfers) at the Different Age periods during 1937 :—

CAUSE OF DEATH.	ALL AGES.			AGE.												75—	85 & Over
	Total.	Males.	Females.	—1	1—	5—	10—	15—	25—	35—	45—	55—	65—				
Typhoid Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	1	1	...	...	1	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	5	3	2	...	4	1	...	...	...	...	...	...	...	...
Whooping Cough ...	51	27	24	24	24	2	...	...	1	...	...	...	...	...
Diphtheria ...	9	7	2	...	4	5	...	...	...	...	...	...	...	...
Influenza ...	113	43	70	4	2	...	1	4	9	13	13	22	22	16			
Cerebro-Spinal Fever ...	5	5	...	3	2	...	...	...	...	...	...	...	...	7
Other Epidemic Diseases ...	4	4	...	1	...	...	...	...	...	...	...	...	2	1
Tuberculosis of Respiratory System ...	102	47	55	...	...	...	2	33	25	21	12	4	2	3
Other Tuberculous Diseases ...	43	24	19	2	6	5	3	10	7	7	1	1	...	1			
Cancer, Malignant Disease ...	307	129	178	...	...	...	...	...	3	14	42	80	106	54
Diabetes Mellitus ...	27	11	16	...	...	...	...	...	2	...	2	5	10	7
Diseases of Nervous System ...	315	144	171	8	2	6	6	7	5	14	30	58	91	79			
Diseases of Circulatory System ...	650	280	370	1	...	1	4	13	10	27	49	106	202	182			
Bronchitis ...	110	56	54	11	1	1	...	2	2	4	7	15	27	26			
Pneumonia (all forms) ...	242	134	108	72	33	1	1	10	11	19	20	18	36	18			
Other Respiratory Diseases ...	41	19	22	1	...	...	...	2	1	4	1	8	8	9
Diarrhoea, etc. (all ages) ...	24	10	14	17	2	...	...	1	...	...	...	1	1	1
Appendicitis ...	13	6	7	...	1	...	2	1	1	2	4	...	2	...			
Other Digestive Diseases ...	70	37	33	3	1	...	...	...	3	10	15	16	14	9
Acute and Chronic Nephritis ...	72	33	39	...	...	...	1	6	3	8	9	15	21	9
Other Diseases of Genito-Urinary System ...	41	24	17	...	1	...	...	3	1	2	3	9	16	5	
Puerperal Sepsis ...	6	...	6	...	...	...	...	3	3	...	...	...	...	...
Other Puerperal Causes ...	10	...	10	...	...	...	...	...	5	...	...	...	...	...
Congenital Debility, Premature Birth, Malformations, etc. ...	116	65	51	115	1	...	...	...	...	...	...	...	...	...
Old Age ...	79	21	58	...	...	...	...	...	...	...	...	...	7	47
Violent Deaths ...	128	73	55	6	11	4	2	2	11	11	15	18	18	20			
All other Causes ...	88	37	51	4	4	3	2	5	5	10	19	10	15	11			
All Causes	2672	1240	1432	272	100	29	24	102	108	171	240	387	600	498	141		

TABLE IV.

Death Rates at various age-periods (from all causes)
each year.

1933-1937.

Ages. Periods.	1933		1934		1935		1936		1937	
	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate
All ages	2577	14.5	2417	13.6	2346	13.2	2526	14.1	2672	15.0
0-5 years	433	28.4	370	24.3	295	19.3	378	24.6	372	24.3
5-10 ..	36	2.2	29	1.8	31	1.9	36	2.2	29	1.8
10-15 ..	34	2.4	32	2.3	20	1.4	31	2.2	24	1.7
15-25 ..	80	2.6	78	2.5	73	2.3	90	2.9	102	3.3
25-35 ..	109	4.0	91	3.3	97	3.5	92	3.3	108	3.9
35-45 ..	135	6.0	152	6.8	139	6.2	115	5.1	171	7.6
45-55 ..	222	11.1	198	9.9	185	9.2	205	10.1	240	11.9
55-65 ..	413	24.4	403	23.8	374	22.0	389	22.8	387	22.8
65-75 ..	571	58.4	548	56.0	531	54.0	583	59.1	600	61.2
75-85	443	139.2	405	127.3	501	156.6	490	152.7	498	156.1
85 and over	101	270.8	111	297.6	100	266.7	117	312.0	141	377.0

TABLE V.

Death Rate (from all causes) each month during the years

1933-1937.

(From Registrar General's monthly returns.)

Month.	1933	1934	1935	1936	1937
January ...	29.0	15.5	16.4	18.5	25.0
February ..	23.1	14.4	16.0	18.6	20.4
March ...	14.9	13.1	15.5	14.7	17.8
April...	12.3	14.9	13.8	14.5	12.8
May ...	12.5	13.3	13.6	13.7	12.8
June...	11.7	13.0	10.7	13.5	13.0
July ...	9.7	13.1	12.6	11.3	12.9
August ...	10.5	11.7	10.6	12.3	12.3
September ...	13.2	10.9	11.3	11.0	12.1
October ...	12.5	13.5	10.8	12.4	10.6
November ...	11.3	14.3	13.3	14.3	12.9
December ...	14.0	16.1	14.3	15.1	16.5

TABLE VI.

Death-rate (from all causes) in various Wards each year since 1922.

	Whole	W A R D S.										
Year.	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1922	16.7	16.0	17.0	18.1	15.5	14.4	18.1	15.0	18.1	15.3	14.0	—
1923	14.7	15.0	14.0	14.8	14.0	12.8	16.4	15.0	15.4	14.3	12.1	—
1924	16.4	15.7	16.6	17.2	14.8	13.5	18.6	16.5	17.6	16.6	13.4	—
1925	16.7	17.8	15.3	18.4	15.9	15.3	16.8	15.2	17.6	15.6	12.2	—
1926	14.8	15.7	15.5	16.7	14.0	12.5	14.8	14.5	15.5	14.1	13.2	—
1927	16.9	16.9	17.9	10.4	15.7	15.2	17.6	16.3	16.5	18.0	12.6	—
1928	15.1	16.6	15.2	17.3	13.0	13.9	13.6	14.8	14.0	15.8	11.3	—
1929	16.0	16.1	15.7	17.8	14.2	13.6	14.4	16.1	16.9	16.1	12.9	—
1930	16.0	17.3	14.0	16.2	13.0	15.3	16.4	16.1	16.1	16.3	12.8	—
1931	13.9	12.4	15.6	13.5	14.1	13.2	14.1	12.7	14.2	14.7	11.2	—
1932	13.8	12.7	14.4	12.6	12.9	12.6	15.5	11.7	15.8	14.6	13.1	—
1933	14.5	11.8	13.6	14.7	13.6	13.6	15.1	14.7	14.8	14.7	13.1	—
1934	13.6	12.9	14.3	15.8	13.0	12.1	10.9	12.8	14.6	12.1	14.6	—
1935	13.2	10.1	14.2	13.3	12.3	12.0	11.2	14.2	12.3	14.0	13.2	—
1936	14.1	10.1	14.1	12.0	13.3	14.7	14.1	14.3	14.9	13.4	14.6	14.4
1937	15.0	11.8	15.9	14.2	16.5	16.3	13.2	16.4	13.7	13.4	15.5	15.3

TABLE VII.

Birth-rate in various Wards each year since 1922.

	Whole	W A R D S.										
Year.	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12
1922	24.6	27.2	24.6	24.6	22.5	21.1	27.5	24.6	28.3	25.1	19.2	—
1923	24.6	27.7	24.6	26.0	21.8	22.3	27.7	25.8	28.5	24.0	13.6	—
1924	22.6	23.1	21.8	25.5	20.8	21.3	24.7	20.1	26.9	23.7	14.0	—
1925	21.8	23.3	19.9	22.2	21.7	20.2	24.1	22.1	25.0	22.1	14.4	—
1926	21.9	24.7	23.2	26.5	19.6	18.9	25.1	20.3	24.2	23.4	10.9	—
1927	20.4	24.6	20.6	25.0	18.1	18.5	22.4	20.1	22.2	18.9	11.6	—
1928	20.3	25.5	19.4	23.1	18.2	18.3	22.0	20.6	21.9	18.9	15.1	—
1929	20.0	25.3	17.0	25.0	16.7	20.3	22.9	20.0	23.7	21.6	12.9	—
1930	21.1	25.6	18.4	24.2	18.7	21.5	21.6	20.8	21.4	22.0	14.0	—
1931	19.5	21.0	15.4	22.6	18.5	17.2	23.5	15.8	22.5	22.1	15.0	—
1932	18.5	18.3	17.1	23.2	15.5	18.5	23.1	17.2	18.6	18.6	13.2	—
1933	17.5	17.9	16.4	20.2	14.9	17.2	20.0	18.7	17.1	18.2	10.9	—
1934	18.7	14.3	21.2	19.8	13.5	20.2	22.0	21.3	19.9	17.2	10.8	—
1935	17.9	19.1	16.3	20.5	15.3	17.2	18.6	19.7	18.8	18.3	11.8	—
1936	17.7	17.0	15.3	18.3	16.3	20.1	17.0	20.5	19.5	15.6	13.2	19.8
1937	17.6	16.6	16.0	18.3	22.9	16.7	15.3	20.7	17.6	16.1	12.8	18.6

TABLE VIII.

Infantile Death-rate (per 1,000 births) in various Wards each year since 1922.

	Whole	W A R D S.										
Year	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1922	109	81	101	136	121	109	115	99	125	98	76	—
1923	98	89	79	121	76	119	121	78	88	93	74	—
1924	120	104	144	137	121	112	133	108	96	136	71	—
1925	126	156	128	102	124	118	119	85	150	123	57	—
1926	103	114	75	110	94	96	100	100	132	93	66	—
1927	138	121	160	127	137	139	175	135	140	130	62	—
1928	102	93	120	82	91	108	96	79	111	127	65	—
1929	102	91	101	116	80	124	80	101	119	87	86	—
1930	113	101	101	117	109	92	135	124	113	135	60	—
1931	92	87	94	86	75	75	113	83	112	116	19	—
1932	72	52	54	65	44	63	100	70	101	89	42	—
1933	98	92	123	101	76	116	121	81	85	88	51	—
1934	74	53	55	94	101	79	69	73	87	72	34	—
1935	68	61	87	73	98	74	62	55	55	82	63	—
1936	81	69	60	81	83	75	94	74	77	82	104	85
1937	87	57	89	85	101	45	112	81	89	87	36	103

TABLE IX.

Death-rate in various Wards each year since 1922 from principal Epidemic Diseases.

Year.	Whole		W A R D S									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1922	.80	1.09	.72	.66	.67	.95	1.05	.89	.84	.43	.54	—
1923	1.17	1.65	.97	1.03	.77	1.00	1.48	1.29	1.75	1.12	.36	—
1921	1.69	1.51	2.42	1.93	1.54	1.48	2.67	1.45	1.59	1.71	.36	—
1925	1.70	1.58	1.60	2.49	1.27	.57	.90	.82	1.21	.37	.27	—
1926	.79	.96	.72	1.24	.79	1.60	1.69	1.82	2.21	1.70	.45	—
1927	1.43	2.16	1.25	2.32	1.45	1.13	1.44	1.19	.93	1.78	.54	—
1928	.65	1.08	.55	.67	.47	.79	.66	.43	.93	.47	.09	—
1929	.38	.35	.40	.57	.37	.36	.46	.11	.48	.38	.09	—
1930	.78	.63	.41	.95	.64	.63	1.03	.39	1.56	.97	.18	—
1931	.84	.89	.76	.48	.75	.56	1.28	.31	1.37	1.46	.47	—
1932	.68	.47	.68	.42	.69	.68	.98	.45	1.05	.85	.46	—
1933	1.08	.94	1.26	1.80	1.14	.92	1.15	.93	.52	1.14	1.30	—
1934	.72	.41	.76	.97	.65	.48	.81	.67	1.04	.88	.65	—
1935	.40	.23	.50	.60	.28	.40	.34	.31	.26	.51	.28	—
1936	.57	.41	.42	.54	.51	.61	.80	.22	.83	.72	.64	.46
1937	1.06	.82	1.51	1.26	1.02	.96	1.05	.66	.94	1.19	1.29	.93

NOTE.—Figures are for 18 Infectious Diseases (excluding Infantile Diarrhoea).

TABLE X.

Pulmonary Tuberculosis Death-rate in various Wards each year since 1922

Year.	Whole		W A R D S									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1922	.98	.54	1.12	.95	.87	1.17	1.18	.72	1.16	.92	.63	—
1923	.95	1.24	1.05	1.15	.82	.69	1.08	.89	1.27	.93	.45	—
1924	.85	1.30	.56	.54	.92	.65	1.13	1.00	.95	.88	.45	—
1925	.87	.89	.80	1.12	.74	.80	1.12	.66	.79	1.06	.55	—
1926	.91	.96	.79	.87	.32	.93	.56	.77	.95	1.17	.54	—
1927	.99	1.35	.86	1.10	.57	.96	.77	.76	.78	1.20	.45	—
1928	.80	.74	.47	.98	1.09	1.00	.66	.65	.83	.63	.34	—
1929	.75	.56	.81	.94	.61	.54	.91	.62	1.07	1.08	.55	—
1930	.73	1.05	.72	.70	.48	.90	.46	1.18	.91	.70	.09	—
1931	.73	.53	.68	.79	.69	.64	.81	.98	.79	.68	.28	—
1932	.61	.65	.68	.54	.65	.60	.40	.31	1.36	.52	.09	—
1933	.58	.29	.59	.48	.63	.60	.63	.36	1.10	.52	.46	—
1934	.54	.53	.25	.60	.57	.44	.58	.36	.99	.41	.65	—
1935	.67	.82	.67	.78	.57	.60	.40	.75	.73	.93	—	—
1936	.60	.47	1.00	.60	.34	.48	.69	.80	.41	.51	.57	.72
1937	.57	.59	.42	.48	.80	.41	.46	.66	.63	.46	.55	.72

TABLE XI.

Tuberculosis (all forms) Death-rate in various Wards each year since 1922.

Year.	Whole		W A R D S									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1922	1.37	.82	1.44	1.31	1.43	1.51	1.80	1.00	1.63	1.36	.62	—
1923	1.43	1.65	1.46	1.45	1.29	1.18	1.71	1.34	1.86	1.32	.64	—
1924	1.23	1.51	.80	1.33	1.19	1.04	1.64	1.40	1.48	1.07	.54	—
1925	1.22	1.37	1.12	1.37	1.11	.98	1.41	1.10	1.37	1.38	.82	—
1926	1.12	1.43	1.19	1.18	.52	1.19	.73	1.21	1.26	1.54	.63	—
1927	1.16	1.69	1.02	1.40	.67	1.26	1.05	.87	1.04	1.32	.54	—
1928	1.05	.98	.86	1.22	1.30	1.22	.94	.92	1.04	.89	.63	—
1929	1.05	.77	1.29	1.20	1.02	.76	1.08	1.01	1.28	1.35	.64	—
1930	1.05	1.68	1.14	.76	.70	1.31	.62	1.46	1.18	.92	.28	—
1931	.95	.71	.76	.97	.89	1.01	1.28	1.25	.95	.83	.28	—
1932	.78	1.00	.84	.78	.69	.88	.58	.53	1.47	.57	.09	—
1933	.84	.53	.59	.84	.91	.76	.98	.67	1.57	.67	.65	—
1934	.80	.94	.42	.96	.68	.68	.85	.58	1.46	.67	.65	—
1935	.89	.99	.84	1.19	.68	.68	.69	1.02	.99	1.24	.09	—
1936	.82	.52	1.25	.71	.51	.82	.79	1.02	.73	.72	.64	1.06
1937	.82	.76	.76	.66	1.14	.55	.46	1.10	1.15	.72	.65	.88

TABLE XII.

Certified causes of death at the various ages
under 1 year during 1937.

CAUSE of DEATH.	Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 and under 4 weeks	Total under 4 weeks	4 weeks and under 2 mths	2 and under 3 months	3 and under 6 months	6 and under 9 months	9 and under 12 months	Total Deaths under 1 year
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	1	...	5	8	10	24
Diphtheria ...	...	...	...	...	...	...	...	...	...	...	...
Infantile Paralysis...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis ...	...	...	...	...	...	...	...	1	...	2	3
Tuberculosis {	Lung ...	...	...	...	...	...	...	...	...	...	...
	General ...	...	...	...	...	...	...	...	...	...	...
	Abdominal ...	...	...	...	...	...	...	...	...	...	...
	Brain ...	...	...	...	...	...	...	1	...	1	2
	Other Forms ...	...	...	...	...	...	...	...	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	2	2	4
Other Infectious Diseases ...	...	...	1	...	1	...	...	...	...	...	1
Pneumonia (all forms)	2	1	...	...	3	6	5	25	24	9	72
Bronchitis ...	...	...	1	...	1	3	2	4	...	1	11
Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respirat'y System	...	...	...	...	...	...	...	1	...	...	1
Diarrhoea and Enteritis ...	...	...	...	...	...	2	2	4	7	2	17
Other Diseases of Digestive System	1	...	...	...	1	...	...	2	...	...	3
Meningitis (not T.B.)	...	...	...	...	...	...	...	1	...	...	1
Convulsions ...	...	1	...	...	1	1	1	1	2	1	7
Other Diseases of Nervous System	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations ...	6	1	1	1	9	2	...	1	...	...	12
Congenital Debility, Icterus, Sclerema, Marasmus ...	12	1	2	1	16	5	5	4	2	...	32
Premature Birth ...	40	6	2	1	49	3	1	3	...	...	56
Injury at Birth ...	7	...	...	...	7	...	1	...	...	...	8
Other Diseases peculiar to Early Infancy ...	5	1	1	...	7	...	...	...	...	...	7
Suffocation, Ov'rlay'g	1	...	...	...	1	...	2	...	...	...	3
Rickets ...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ...	...	...	...	...	...	1	...	...	...	...	1
Violence ...	2	...	...	...	2	...	...	...	...	1	3
All Other Causes ..	...	1	1	...	2	1	...	...	...	1	4
Totals ...	76	12	9	3	100	25	19	53	45	30	272

TABLE XIII.

Infant Mortality from various groups of causes each year
from 1916.

Year. Average	Con- genital	Diges- tive.	Respira- tory.	Infectious Diseases.	All Other Causes.	Total.
1916	63	20	15	13	15	126
1917	57	24	24	13	19	137
1918	53	16	24	20	13	126
1919	60	13	30	8	15	126
1920	53	21	36	10	11	131
1921	58	16	19	13	8	114
1922	50	11	27	10	11	109
1923	46	4	21	13	14	98
1924	54	12	25	12	17	120
1925	53	10	35	16	12	126
1926	58	11	18	4	12	103
1927	50	14	46	17	11	138
1928	45	9	28	9	11	102
1929	48	12	30	7	5	102
1930	55	7	32	13	6	113
1931	42	7	24	12	7	92
1932	32	7	17	9	7	72
1933	48	9	23	12	6	98
1934	37	4	13	10	10	74
1935	39	5	13	4	7	68
1936	40	6	23	7	5	81
1937	37	6	27	11	6	87

TABLE XIV.

Infant Mortality from all causes at various age periods
since 1916.

DEATH RATES.

Year	Births	Under 1 Week.	Under 1 Month.	Under 3 Months.	Under 1 Year.
1916	3,725	32	49	74	126
1917	2,842	25	42	68	137
1918	2,902	27	45	65	126
1919	3,466	29	51	78	126
1920	5,047	26	44	72	131
1921	4,450	27	47	67	114
1922	4,227	26	46	66	109
1923	4,199	29	44	61	98
1924	3,865	31	48	68	120
1925	3,694	25	42	65	126
1926	3,724	35	49	65	103
1927	3,517	26	46	70	138
1928	3,501	23	39	54	102
1929	3,486	25	40	55	102
1930	3,506	28	46	65	113
1931	3,431	26	34	51	92
1932	3,276	23	31	41	72
1933	3,099	33	43	59	98
1934	3,310	25	35	45	74
1935	3,195	26	35	46	68
1936	3,171	25	37	57	81
1937	3,125	24	32	46	87

TABLE XV.

Deaths and Death-rates from various groups of causes
each year since 1933 (all ages).

DISEASE GROUP.	1933		1934		1935		1936		1937	
	Pop.		Pop.		Pop.		Pop.		Pop.	
	177,177		177,230		178,157		178,692		177,711	
	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.
Congenital ...	153	.86	130	.73	127	.71	133	.74	116	.65
Digestive ...	130	.73	118	.67	116	.65	132	.74	107	.60
Respiratory ...	403	2.27	302	1.70	290	1.63	358	2.00	393	2.21
Infectious ...	359	2.03	287	1.62	247	1.39	269	1.51	349	1.97
Circulatory ...	471	2.66	517	2.92	612	3.44	618	3.46	650	3.66
Genito-Urinary ...	97	.55	83	.47	76	.43	119	.67	113	.64
Malignant ...	321	1.81	335	1.89	305	1.71	333	1.86	307	1.73
Nervous ...	302	1.70	334	1.88	272	1.53	289	1.62	315	1.77
Other Causes ...	341	1.92	311	1.75	301	1.69	275	1.54	322	1.81
	2577	14.54	2417	13.68	2346	13.17	2526	14.14	2672	15.04

TABLE XVI.

Number of Illegitimate Births, number of Deaths (under 1 year)
of Illegitimate Infants, and Death-rate per 1,000 Illegitimate
Births since 1920.

Year.	Illegitimate Births.	Deaths of Illeg. Infants.	Rate per 1000 Illeg. Births.
1920	427	104	244
1921	344	65	189
1922	296	45	152
1923	331	43	130
1924	280	52	186
1925	235	33	140
1926	256	33	129
1927	268	48	179
1928	274	42	153
1929	265	29	109
1930	276	44	159
1931	254	28	110
1932	226	23	102
1933	254	45	177
1934	272	28	103
1935	240	24	100
1936	212	34	160
1937	257	32	125

TABLE XVII.

Five yearly average annual death-rates per 100,000 population from certain of the Infectious Diseases, 1876-1925, and number of deaths and death-rates per 100,000 each year since 1926.

YEAR.	Smallpox		Scarlet Fever.		Enteric Fever.		Typhus Fever.		Diphtheria.		Measles.		Whooping Cough.	
	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.
1876-1880	—	.1	—	26.5	—	14.1	—	10.4	—	29.1	—	52.7	—	84.4
1881-1885	—	.1	—	14.7	—	10.5	—	5.3	—	40.0	—	33.0	—	86.1
1886-1890	—	0	—	33.0	—	17.6	—	2.8	—	20.0	—	32.7	—	67.3
1891-1895	—	.2	—	5.7	—	10.4	—	4.0	—	19.7	—	51.5	—	64.4
1896-1900	—	0	—	14.5	—	10.8	—	2.5	—	16.1	—	36.5	—	43.9
1901-1905	—	1.5	—	4.1	—	3.7	—	.6	—	12.7	—	42.5	—	55.5
1906-1910	—	.1	—	14.5	—	3.6	—	.7	—	25.9	—	60.8	—	42.1
1911-1915	—	.5	—	10.9	—	2.8	—	.5	—	21.0	—	41.7	—	61.2
1916-1920	—	.1	—	2.7	—	.6	—	.2	—	18.5	—	33.1	—	15.3
1921-1925	—	—	—	13.3	—	.6	—	—	—	22.8	—	40.5	—	25.7
1926	0	—	28	16.5	1	.5	0	—	65	38.8	1	.6	4	2.4
1927	0	—	9	5.2	0	—	0	—	69	40.0	76	44.1	48	27.8
1928	0	—	0	—	0	—	0	—	30	17.4	16	9.3	36	20.9
1929	0	—	3	1.8	2	1.2	0	—	13	7.8	1	.6	7	4.2
1930	0	—	0	—	1	.6	0	—	13	7.8	65	39.0	29	17.4
1931	0	—	0	—	2	1.1	0	—	17	9.7	14	8.0	44	25.0
1932	0	—	3	1.7	0	—	0	—	17	9.6	48	27.1	10	5.7
1933	0	—	13	7.3	1	.9	0	—	10	5.6	0	—	35	19.8
1934	0	—	11	6.2	2	1.1	0	—	6	3.4	56	51.6	17	.96
1935	0	—	1	.6	0	—	0	—	16	9.0	13	7.3	12	6.7
1936	0	—	5	2.8	0	—	0	—	7	3.9	38	21.3	9	5.0
1937	0	—	5	2.8	0	—	0	—	9	5.1	1	.6	51	28.7

TABLE XVIII.

Five-yearly average annual Case Mortality (per cent.) from certain Infectious Diseases 1891-1925, and No. of Cases notified and intimated, No. of Deaths, and Case Mortality each year since 1926.

YEAR.	Smallpox.			Scarlet Fever.			Enteric Fever.			Typhus Fever.			Diphtheria.			Measles.			Whooping Cough.		
	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.
1891-1895	—	—	3.7	—	—	3.3	—	—	15.1	—	—	9.8	—	—	38.0	—	—	8.7	—	—	70.8
1896-1900	—	—	—	—	—	4.2	—	—	15.2	—	—	22.5	—	—	23.2	—	—	8.4	—	—	47.0
1901-1905	—	—	6.4	—	—	2.3	—	—	16.6	—	—	14.0	—	—	16.2	—	—	10.2	—	—	38.8
1906-1910	—	—	1.5	—	—	3.0	—	—	11.3	—	—	12.1	—	—	17.3	—	—	10.4	—	—	17.6
1911-1915	—	—	5.3	—	—	2.6	—	—	9.9	—	—	13.3	—	—	11.1	—	—	11.0	—	—	13.2
1916-1920	—	—	6.7	—	—	1.4	—	—	11.2	—	—	26.7	—	—	11.0	—	—	5.7	—	—	5.2
1921-1925	—	—	—	—	—	2.4	—	—	7.3	—	—	—	—	—	9.8	—	—	6.3	—	—	8.9
1926	0	0	—	1275	28	2.2	25	1	4.0	0	—	—	786	66	8.4	77	1	1.3	149	4	2.7
1927	152	0	—	414	9	2.2	9	0	—	0	—	—	1023	69	6.7	2032	76	3.7	924	48	5.2
1928	5	0	—	208	0	—	3	0	—	0	—	—	623	30	4.8	1062	16	1.5	829	36	4.3
1929	0	0	—	822	3	4	17	2	11.8	0	—	—	437	13	3.0	72	1	1.4	208	7	3.4
1930	0	0	—	302	0	—	16	1	6.7	0	—	—	403	13	3.2	2605	66	2.5	673	29	4.3
1931	0	0	—	246	0	—	18	2	11.1	0	—	—	395	17	4.3	383	14	3.7	840	44	5.2
1932	0	0	—	605	3	.5	5	0	—	0	—	—	372	17	4.6	2005	48	2.4	239	10	4.2
1933	0	0	—	1901	13	.7	29	1	3.4	0	—	—	368	10	2.7	564	0	—	893	35	3.9
1934	0	0	—	1188	11	.9	34	2	5.9	2	—	—	343	6	1.7	2149	56	2.6	499	17	3.4
1935	0	0	—	845	1	.1	5	0	—	0	—	—	459	16	3.5	216	13	6.0	486	12	2.5
1936	0	0	—	362	5	1.4	5	0	—	0	—	—	320	7	2.2	1862	38	2.0	302	9	3.0
1937	0	0	—	815	5	.6	10	0	—	0	—	—	330	9	2.7	312	1	.3	925	51	5.5

TABLE XIX.

MALIGNANT DISEASES.

Number of Deaths during each year since 1921 :—

Year.	Males.	Females.	Total.
1921	113	176	289
1922	104	168	272
1923	115	146	261
1924	103	167	270
1925	114	173	287
1926	111	154	265
1927	111	165	276
1928	138	200	338
1929	101	179	280
1930	136	176	312
1931	122	154	276
1932	130	163	293
1933	142	179	321
1934	132	203	335
1935	126	179	305
1936	134	199	333
1937	129	178	307

TABLE XX.

Death-rate per 10,000 population, from Malignant Diseases, each year since 1921, sexes given separately and together.

Year.	Males.	Females.	Total.
1921	15.13	18.80	17.17
1922	18.02	17.55	15.81
1923	15.17	15.36	15.27
1924	18.55	17.52	15.76
1925	15.16	18.37	16.95
1926	14.70	16.29	15.58
1927	14.50	17.21	16.01
1928	18.05	20.89	19.63
1929	13.61	19.27	16.76
1930	18.40	19.01	18.74
1931	15.44	15.88	15.68
1932	16.37	16.73	16.57
1933	17.85	18.34	18.12
1934	16.69	20.79	18.90
1935	15.75	18.23	17.12
1936	16.70	20.21	18.63
1937	16.17	18.18	17.28

TABLE

Age and Sex Distribution of Deaths from Malignant

AGE GROUPS.		BUCCAL CAVITY					PHARYNX, OESOPHAGUS, STOMACH, LIVER and ANNEXA					PERITONEUM, INTESTINES and RECTUM			
		Jaw	Larynx	Mouth	Nose	Tongue	Gall Bladder	Liver	Oesophagus	Pharynx	Stomach	Bowel	Colon	Intestine	Rectum
Under 20	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20-25	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25-35	M	..	..	..	..	..	..	..	..	..	1	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	1	..	..	..	..
35-45	M	..	..	..	..	..	..	..	..	..	1	..	..	..	..
	F	1	1	..	..	..	..	1	..	..	1	..	..	1	..
45-55	M	..	..	..	1	..	1	..	1	..	5	..	3	..	1
	F	1	..	..	..	..	..	3	1	..	4	..	2	1	1
55-65	M	2	..	3	1	..	..	1	2	..	13	1	3	1	1
	F	..	..	..	..	1	1	2	2	..	10	1	4	2	5
65-75	M	1	1	3	..	2	..	3	1	2	11	3	7	3	4
	F	..	..	..	..	..	2	4	..	..	18	4	7	..	2
75 and up	M	..	..	..	..	1	..	1	..	1	4	1	1	..	1
	F	1	..	..	..	..	..	3	1	1	13	..	6	3	4
Totals		6	2	6	2	4	4	18	8	4	82	10	33	11	17

XXI.

Diseases during 1937, showing parts of the body affected.

FEMALE GENITAL ORGANS			BREAST	SKIN		OTHER OR UNSPECIFIED ORGANS													TOTALS
Ovary	Uterus	Vulva		Face	Abdomen	Bladder	Brain	Femur	Lung	Mediastinum	Neck	Prostate	Spine	Testicle	Thyroid	Other Parts	Not Specified		
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	14
1	5	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	42
1	7	.	3	.	.	1	.	2	2	1	1	1	.	.	2	.	.	80	
.	.	.	.	1	.	2	.	3	2	1	1	.	1	.	2	.	.	53	
.	4	.	6	.	1	.	.	1	.	1	.	.	.	.	.	.	.	53
.	.	.	.	1	.	1	.	3	.	.	3	.	.	.	4	.	.	106	
1	5	.	2	.	1	1	1	2	.	.	.	.	.	1	2	.	.	62
.	.	.	1	.	1	.	.	.	.	.	2	.	1	.	2	.	.	45
.	1	.	5	3	.	.	1	1	.	.	.	.	.	.	2	.	.	
3	22	1	16	6	1	6	2	1	15	2	3	6	1	2	1	12	0	307	

TABLE XXII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, and, number of Deaths and Death-rates per 100,000 each year since 1926, from the Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).

Year	Total Deaths	Death-rate per 100,000
1876-1880	—	508.5
1881-1885	—	482.3
1886-1890	—	463.2
1891-1895	—	473.2
1896-1900	—	419.8
1901-1905	—	387.1
1906-1910	—	345.6
1911-1915	—	329.5
1916-1920	—	327.3
1921-1925	—	278.6
1926	401	235.8
1927	592	343.3
1928	471	273.5
1929	607	363.2
1930	522	313.5
1931	429	243.7
1932	390	220.5
1933	403	227.5
1934	302	170.4
1935	290	162.8
1936	358	200.4
1937	393	221.1

TABLE XXIII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, and, number of Deaths and Death-rates per 100,000 each year since 1926 from Diabetes Mellitus.

Year	Total Deaths	Death-Rate per 100,000
1876-1880	—	—
1881-1885	—	1.8
1886-1890	—	.5
1891-1895	—	2.0
1896-1900	—	2.4
1901-1905	—	5.5
1906-1910	—	5.9
1911-1915	—	8.5
1916-1920	—	5.5
1921-1925	—	6.9
1926	11	6.5
1927	19	11.0
1928	15	8.7
1929	20	12.0
1930	13	7.8
1931	24	13.6
1932	19	10.7
1933	18	10.2
1934	21	11.8
1935	23	12.9
1936	22	12.3
1937	27	15.2

TABLE XXIV.

INFLUENZA.

Deaths in which Influenza was given as a cause each month
January 1928—December 1937.

MONTH.	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
January ...	1	6	2	0	1	67	0	5	3	77
February ...	0	55	1	4	6	31	0	5	2	23
March ...	3	4	3	20	7	3	1	3	2	5
April ...	1	1	3	11	1	0	0	0	0	0
May ...	0	0	0	2	3	2	0	2	2	1
June ...	0	1	1	1	0	1	0	1	1	1
July ...	0	2	1	0	0	0	2	0	0	0
August ...	0	0	0	0	2	2	1	0	0	0
September ...	1	0	1	2	0	1	0	0	0	1
October ...	2	0	1	0	0	1	0	0	2	2
November ...	3	2	1	1	2	0	1	1	1	1
December ...	7	1	2	3	2	4	8	1	1	2
Totals ...	18	72	16	44	24	112	13	18	14	113

TABLE XXV.

Deaths in which Influenza appears as a cause in death certificate
1928-1937 classified in age periods.

AGE PERIODS.	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Under 1 year	1	6	0	1	1	3	1	0	1	4
1-5 years	0	3	0	0	0	4	0	0	0	2
5-15 "	0	2	1	0	1	1	0	0	1	1
15-25 "	1	2	0	0	0	2	1	1	0	4
25-45 "	4	12	1	5	4	21	2	2	2	22
45-65 "	4	14	6	17	6	30	4	4	3	35
65 and upwards	8	33	8	21	12	51	5	11	7	45
Totals	18	72	16	44	24	112	13	18	14	113

During 1937, 5 deaths were certified as due to Influenza alone,
while in 108 cases it was associated with :—

Bronchitis	...	...	...	10
Pneumonia	...	...	...	73
Other Respiratory Disease	...	...	...	4
Other causes	...	...	...	21

TABLE XXVI.

INFECTIOUS DISEASES.—Number of Cases of each disease notified and reported in Dundee during the Year 1937. Also number removed and number not removed to Hospital.

DISEASE	At all ages	At Ages—Years							Cases removed to Hospital	Cases not removed to Hospital
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards		
Cerebro-Spinal Fever ...	9	4	4	1	...	...	...	...	9	...
*Chickenpox ...	663	12	71	578	...	2	...	...	6	657
Continued Fever (Undulant) ...	1	...	...	...	...	...	1	...	...	1
Diphtheria ...	330	14	93	154	39	25	4	1	316	14
Dysentery ...	47	5	17	11	1	5	7	1	44	3
Erysipelas ...	207	7	5	7	17	49	85	37	107	100
Malaria ...	8	...	...	...	1	7	...	...	...	8
*Measles ...	312	6	38	261	5	2	...	...	32	280
Ophthalmia Neonatorum ...	54	54	...	...	...	...	...	...	15	41
Pneumonia, Acute Influenzal	168	8	21	15	18	40	39	27	102	66
Pneumonia, Acute Primary	829	158	293	147	53	91	60	27	580	249
Puerperal Fever	22	...	...	...	8	14	...	...	20	2
Puerperal Pyrexia	47	...	...	...	17	30	...	...	41	6
Scarlet Fever ...	815	6	236	438	76	51	8	...	579	236
Tuberculosis, Pulmonary ...	230	1	5	66	47	85	20	6	203	27
Tuberculosis, Non-Pulmonary	139	1	22	59	26	26	2	3	107	32
Typhoid Fever ...	8	...	...	2	2	3	1	...	8	...
Para-Typhoid B	2	...	...	1	...	...	1	...	2	...
*Whooping Cough	925	93	284	548	...	...	...	...	166	759
Totals ...	4816	369	1089	2288	310	430	228	102	2335	2481

*Not notifiable in Dundee during 1937.

Tuberculosis—cases notified in a previous year and removed to Hospital for the first time during 1937—

Pulmonary, 22 ; Non-Pulmonary. 3 ; Total, 25.

TABLE XXVII.

Monthly Notifications and Intimations of Infectious Disease,
Dundee, 1937.

DISEASE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Cerebro-Spinal Fever ...	2	2	2	2	1	...	...	...	...	...	...	...	9
•Chickenpox ...	74	21	29	28	61	123	27	9	45	72	79	95	663
Continued Fever (Undulant) ...	...	...	...	...	...	...	...	...	...	...	...	1	1
Diphtheria ...	22	19	23	22	13	26	23	17	27	54	52	32	330
Dysentery ...	1	5	4	...	1	1	8	...	2	3	14	8	47
Erysipelas ...	15	18	19	21	17	10	8	17	19	24	24	15	207
Malaria ...	...	...	...	...	...	...	1	...	3	2	...	2	8
•Measles ...	3	2	1	...	8	10	6	1	4	8	56	213	312
Ophthalmia Neonatorum ...	5	5	6	6	4	8	3	5	2	3	1	6	54
Pneumonia, Acute Influenzal	128	25	4	1	1	2	...	...	...	2	...	5	168
Pneumonia, Acute Primary ...	92	109	88	46	42	30	26	31	44	54	95	172	829
Puerperal Fever ...	...	5	1	1	4	1	2	1	4	1	1	1	22
Puerperal Pyrexia ...	4	2	6	1	2	6	6	6	4	4	3	3	47
Scarlet Fever ...	27	24	38	34	52	64	53	57	87	110	156	113	815
Tuberculosis, Pulmonary ...	23	18	20	31	24	23	18	15	23	10	9	16	230
Tuberculosis, Non-Pulmonary	9	12	10	19	18	13	10	6	9	5	12	16	139
Typhoid Fever ...	...	1	1	1	...	...	...	...	3	...	...	2	8
Para-Typhoid B.	...	...	1	...	...	...	...	...	...	1	...	...	2
•Whooping Cough ...	256	282	163	84	41	50	8	10	11	5	6	9	925
Totals ...	661	550	416	297	289	367	199	175	287	358	508	709	4816

* Not notifiable in Dundee during 1937.

TABLE XXVIII.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population at various age-periods each year since 1921.

Year.	PULMONARY TUBERCULOSIS.										NON-PULMONARY TUBERCULOSIS.														
	0-5.		5-15.		15-25.		25-45.		45-65.		65 & over.		0-5.		5-15.		15-25.		25-45.		45-65.		65 & over.		
	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	
1921	Notifications	21	1.43	57	1.31	105	3.30	128	2.77	54	1.62	8	.77	24	1.50	47	1.46	15	.47	8	.17	5	.14	3	.19
	Deaths	3	.20	5	.15	38	1.19	76	1.64	38	1.12	8	.77	17	1.15	10	.50	11	.34	8	.17	4	.12	3	.29
1922	Notifications	15	.99	66	2.05	109	3.34	130	2.75	73	2.10	8	.70	49	3.26	54	1.63	40	1.23	12	.25	7	.66	0	—
	Deaths	0	—	10	.31	36	1.10	64	1.35	53	1.53	5	.47	26	1.73	15	.46	19	.58	0	—	6	.17	1	.09
1923	Notifications	20	1.34	50	1.56	72	2.23	97	2.07	60	1.74	10	.95	50	3.35	70	2.19	52	1.61	27	.58	12	.34	5	.47
	Deaths	6	.40	11	.34	45	1.39	64	1.36	36	1.01	6	.57	35	2.34	15	.50	13	.40	6	.12	5	.14	3	.33
1924	Notifications	14	.93	48	1.50	73	2.25	101	2.15	51	1.47	8	.76	50	3.34	37	1.15	26	.80	20	.43	7	.20	2	.19
	Deaths	1	.06	8	.25	44	1.36	65	1.17	33	.96	5	.47	28	1.87	14	.44	9	.23	6	.13	7	.20	1	.09
1925	Notifications	8	.54	49	1.55	72	2.25	100	2.15	42	1.23	9	.88	36	2.44	32	1.01	27	.84	17	.37	5	.15	4	.39
	Deaths	4	.27	6	.19	39	1.22	57	1.23	36	1.05	6	.58	18	1.22	9	.23	15	.47	10	.23	4	.12	3	.29
1926	Notifications	3	.20	67	2.10	72	2.24	107	2.29	53	1.55	6	.58	37	2.48	41	1.29	22	.68	13	.23	7	.20	3	.39
	Deaths	0	—	4	.13	34	1.06	60	1.29	35	1.02	5	.48	20	1.55	12	.33	8	.25	7	.15	3	.00	3	.19
1927	Notifications	7	.47	80	2.48	76	2.33	80	1.69	40	1.15	5	.48	38	2.53	23	.87	13	.40	23	.49	6	.17	4	.63
	Deaths	3	.20	6	.19	45	1.33	70	1.48	26	.75	8	.29	21	1.40	5	.15	6	.18	8	.17	3	.09	4	.83
1928	Notifications	11	.73	82	2.54	62	1.90	109	2.31	47	1.35	7	.67	30	2.00	49	1.52	30	.61	20	.42	8	.23	4	.35
	Deaths	3	.20	5	.16	34	1.04	69	1.25	33	.95	4	.33	15	1.00	12	.37	7	.21	4	.08	2	.06	2	.10
1929	Notifications	5	.34	63	2.01	65	2.06	88	1.92	33	.98	6	.59	90	2.06	23	.74	19	.60	14	.31	4	.12	0	—
	Deaths	3	.21	3	.10	27	.85	64	1.40	27	.80	6	.59	18	1.24	5	.16	10	.32	9	.20	3	.09	0	—
1930	Notifications	7	.48	80	2.57	59	1.87	81	1.77	35	1.04	5	.49	35	2.41	31	.99	17	.54	15	.33	5	.15	2	.20
	Deaths	1	.07	3	.10	30	.95	54	1.18	33	.98	5	.49	22	1.52	5	.16	9	.29	7	.15	4	.12	2	.30
1931	Notifications	5	.33	65	2.14	62	2.00	85	1.72	25	.68	3	.23	21	1.39	28	.92	19	.61	16	.32	2	.05	1	.08
	Deaths	0	—	0	—	29	.94	66	1.33	29	.79	4	.30	12	.79	7	.23	8	.26	4	.11	0	—	0	—
1932	Notifications	4	.26	55	1.80	46	1.48	80	1.61	37	1.00	7	.53	29	1.91	49	1.60	30	.96	17	.34	4	.11	0	—
	Deaths	2	.13	5	.16	28	.90	46	.92	24	.65	2	.15	11	.72	7	.23	5	.16	6	.12	1	.03	1	.08
1933	Notifications	7	.46	69	2.25	56	1.80	90	1.80	30	.81	3	.23	29	1.90	26	.85	18	.53	13	.26	2	.05	0	—
	Deaths	1	.07	7	.23	22	.71	41	.82	27	.73	4	.30	21	1.35	8	.26	7	.22	7	.14	3	.08	0	—
1934	Notifications	8	.53	59	1.93	53	1.70	84	1.68	38	1.03	4	.30	22	1.44	40	1.31	15	.38	18	.35	5	.14	3	.23
	Deaths	1	.07	4	.13	23	.74	43	.86	22	.60	2	.15	13	.85	11	.36	12	.38	7	.14	2	.05	2	.15
1935	Notifications	12	.78	72	2.34	56	1.79	85	1.70	34	.92	6	.45	29	1.89	58	1.88	21	.67	11	.22	9	.24	1	.07
	Deaths	2	.13	2	.06	24	.77	54	1.08	27	.72	10	.75	12	.78	14	.45	6	.19	3	.06	3	.08	1	.07
1936	Notifications	9	.59	50	1.61	65	2.06	80	1.59	25	.67	3	.22	31	2.03	33	1.07	20	.64	19	.37	4	.11	2	.15
	Deaths	2	.13	4	.13	24	.76	48	.95	25	.67	4	.30	13	.85	10	.32	7	.22	4	.08	3	.08	3	.22
1937	Notifications	6	.39	66	2.15	47	1.50	85	1.70	20	.54	6	.45	23	1.51	59	1.92	26	.83	2	.05	2	.05	2	.12
	Deaths	0	—	2	.07	33	1.05	46	.92	16	.43	5	.37	8	.52	8	.26	10	.32	14	.38	2	.05	1	.07

TABLE XXIX.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population, for each year since 1913 (since notification became compulsory).

YEAR	Estimated Population.	NOTIFICATIONS AND CASE RATES.				DEATHS AND DEATH-RATES.			
		Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis (all forms).		Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis (all forms).	
		No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.
1913	164,975	400	2.42	Non-Pulmonary Tuberculosis		191	1.16	128	.77
1914	176,584	590	3.34	Notifiable in March, 1914.		249	1.41	126	.71
1915	177,300	485	2.73	377	2.12	862	4.86	113	.64
1916	181,437	522	2.87	213	1.17	735	4.05	259	.52
1917	181,773	432	2.37	171	.94	603	3.31	218	.77
1918	181,777	393	2.16	201	1.11	594	3.26	90	.49
1919	185,388	442	2.38	137	.73	579	3.12	83	.44
1920	184,084	423	2.29	132	.71	555	3.01	69	.38
1921	168,217	375	2.23	99	.58	474	2.81	59	.35
1922	172,061	401	2.33	162	.94	563	3.27	67	.39
1923	170,901	309	1.80	216	1.26	525	3.07	78	.45
1924	171,295	295	1.72	142	.83	437	2.55	65	.38
1925	169,361	280	1.65	121	.72	401	2.37	59	.35
1926	170,060	308	1.81	123	.72	431	2.53	52	.31
1927	172,444	288	1.67	112	.65	400	2.32	47	.27
1928	172,214	318	1.85	131	.76	449	2.61	42	.25
1929	167,109	260	1.56	90	.54	350	2.09	45	.27
1930	166,495	267	1.60	105	.63	372	2.23	49	.29
1931	176,006	245	1.39	87	.49	332	1.89	39	.22
1932	176,833	229	1.30	129	.73	358	2.02	31	.18
1933	177,177	255	1.44	88	.50	343	1.94	46	.26
1934	177,230	246	1.39	103	.58	349	1.97	47	.26
1935	178,157	265	1.49	129	.72	394	2.21	39	.22
1936	178,692	231	1.29	108	.60	339	1.89	39	.22
1937	177,711	230	1.29	139	.78	369	2.07	43	.25

TABLE XXX

TUBERCULOSIS.—Notifications and Deaths with corresponding rates per 1,000 population in various wards, 1937.

WARD.	NOTIFICATIONS AND CASE RATES.			DEATHS AND DEATH - RATES.		
	Pulmonary Tuberculosis.	Per Non-Pulmonary Tuberculosis. 1000.	Per Tuberculosis (all forms).	Pulmonary Tuberculosis	Per Non-Pulmonary Tuberculosis. 1000.	Per Tuberculosis (all forms).
I. ...	17	1.00	19	1.11	36	2.11
II. ...	19	1.59	9	.76	28	2.55
III. ...	13	.78	8	.48	21	1.26
IV. ...	25	1.42	15	.74	38	2.16
V. ...	24	1.65	12	.82	36	2.47
VI. ...	20	1.15	11	.63	51	1.78
VII. ...	22	1.61	14	1.02	36	2.63
VIII. ...	25	1.30	17	.89	42	2.19
IX. ...	29	1.50	14	.72	43	2.22
X. and XI. ...	8	.74	6	.55	14	1.29
XII. ...	28	1.44	16	.83	44	2.27
No fixed abode	—	—	—	—	—	—
Totals ...	230	1.29	139	.78	369	2.07
					.57	.25
					.45	1.45
						.82

TABLE XXXI

PULMONARY TUBERCULOSIS—Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1915.

Year.	NOTIFICATIONS.				DEATHS.			
	Males.		Females.		Males.		Females.	
	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000
1915	216	2.75	269	2.72	106	1.35	169	1.71
1916	227	2.83	295	2.92	99	1.23	160	1.58
1917	181	2.25	251	2.48	100	1.24	118	1.16
1918	198	2.46	195	1.92	117	1.45	139	1.37
1919	238	2.90	204	1.97	90	1.09	75	.72
1920	223	2.74	200	1.95	95	1.16	88	.85
1921	197	2.64	178	1.90	81	1.08	87	.92
1922	170	2.23	231	2.41	75	.98	93	.97
1923	149	1.97	160	1.68	73	.96	94	.98
1924	135	1.78	160	1.68	75	.98	71	.74
1925	125	1.66	155	1.65	61	.81	87	.98
1926	135	1.79	173	1.83	67	.89	71	.75
1927	147	1.92	141	1.47	76	.99	77	.80
1928	150	2.08	159	1.66	67	.88	71	.74
1929	126	1.70	134	1.44	61	.82	69	.74
1930	131	1.77	136	1.47	64	.87	62	.67
1931	121	1.53	124	1.28	58	.73	70	.72
1932	112	1.41	117	1.20	55	.69	52	.53
1933	143	1.80	112	1.15	52	.65	50	.51
1934	124	1.56	122	1.25	46	.58	49	.50
1935	132	1.65	133	1.35	65	.81	54	.55
1936	124	1.55	107	1.09	47	.58	60	.61
1937	112	1.40	118	1.21	47	.59	55	.56

TABLE XXXII.

Pulmonary Tuberculosis—Deaths in Institutions each year since 1928.

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Total Deaths from Pulmon. T. B.	138	130	126	128	107	102	105	119	107	102
No. of Deaths from Pulmon. T. B. in Institutions	74	70	64	71	58	49	61	66	60	46
Percentage of Total Deaths from Pul. T. B. dying in Institutions	53.6	53.8	50.8	55.5	54.2	48.0	58.1	55.5	56.1	45.1

TABLE XXXIII.
MATERNAL MORTALITY.

Certified causes of deaths of women from diseases and accidents connected with pregnancy and child-birth during 1937.

Accidents of pregnancy	...	...	...	5
Puerperal hæmorrhage	...	...	...	3
Puerperal septicæmia, including post-abortion sepsis	...	...	...	6
Toxæmias of pregnancy, albuminuria, convulsions	...	...	...	1
Other puerperal diseases	...	...	...	1

16

TABLE XXXIV.

Maternal Mortality Rates—number of deaths per 1,000 registered births each year, 1928-1937.

1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
6.86	6.88	4.28	5.25	4.58	7.74	5.44	5.63	6.94	5.12

TABLE XXXV.

Number of births per 1,000 population, illegitimate births per 100 registered births, and marriages per 1,000 population, each year since 1914.

Year.	Birth-rate.	Illegitimate-rate.	Marriage-rate.
1914	25.2	9.1	8.3
1915	22.1	8.0	9.5
1916	20.5	8.0	7.1
1917	15.6	11.2	7.0
1918	16.0	10.6	7.5
1919	18.7	11.1	10.6
1920	27.4	8.5	11.4
1921	26.5	7.7	10.0
1922	24.6	7.0	8.8
1923	24.6	7.9	8.8
1924	22.6	7.2	7.6
1925	21.8	6.4	7.6
1926	21.9	6.9	7.7
1927	20.4	7.6	7.4
1928	20.8	7.8	7.8
1929	20.9	7.6	7.7
1930	21.1	7.9	8.1
1931	19.5	7.4	7.2
1932	18.5	6.9	7.3
1933	17.5	8.2	7.9
1934	18.7	8.2	8.7
1935	17.9	7.5	8.9
1936	17.7	6.7	8.2
1937	17.6	5.9	8.6

TABLE XXXVI.
VACCINATION—1921–1936.

YEAR	Total Births (excluding Transcripts received)	Successfully Vaccinated		In susceptible to Vaccination		Died before Vaccination		Conscientious Objections		Postponement or unaccounted for	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
1921	4509	1191	26.4	27	.6	379	8.4	2682	59.5	230	5.1
1922	4288	1193	27.8	12	.3	323	7.5	2556	59.6	204	4.8
1923	4275	1240	29.0	11	.2	284	6.6	2567	60.1	173	4.1
1924	3921	1077	27.5	16	.4	352	9.0	2271	57.9	205	5.2
1925	3750	978	26.1	17	.4	306	8.2	2270	60.5	179	4.8
1926	3822	1087	28.4	25	.7	309	8.1	2252	58.9	149	3.9
1927	3591	1228	34.2	49	1.4	307	8.5	1933	53.8	74	2.1
1928	3585	1198	33.4	43	1.2	253	7.1	2037	56.8	54	1.5
1929	3598	1118	31.1	63	1.7	240	6.7	2124	59.0	53	1.5
1930	3625	1111	30.6	32	.9	260	7.2	2186	60.3	36	1.0
1931	3531	972	27.5	64	1.8	188	5.3	2247	63.7	60	1.7
1932	3411	904	26.5	47	1.4	171	5.0	2236	65.5	53	1.6
1933	3245	836	25.7	28	.9	204	6.3	2135	65.8	42	1.3
1934	3466	853	24.6	34	1.0	163	4.7	2377	68.6	39	1.1
1935	3375	809	24.0	24	.7	182	5.4	2311	68.5	49	1.5
1936	3400	838	24.6	19	.6	190	5.6	2320	68.2	33	1.0

TABLE XXXVII

Port Sanitation.

DETAILS OF VESSELS ENTERING THE PORT DURING 1937.

	No. of Arrivals.	Tonnage.	No. Inspected by Medical Officer.	No. Inspected by Sanitary Inspector.	No. Reported Defective.	No. of Orders Issued.
From Foreign—						
Steamers	335	593,737	97	335	113	6
Motor Ships	32	46,562	5	32	...	...
Coastwise	754	291,431	...	358	28	...
	1,121	931,730	102	725	141	6

14 re-visits by Port Medical Officer.

TABLE XXXVIII.

Port Sanitation.

Principal Foreign Places from which ships arrived and notes of cargoes.

PORT OR COUNTRY.	No.	CARGOES
India (Calcutta, Chittagong, Colombo, etc.)	86	Jute, Gunnies, Linseed, Desiccated Cocoanut and Oil Cake.
Hamburg	31	Sugar, Potatoes, Farina Phosphates, Fancy Goods, Peas, Beans.
Rotterdam	52	Sugar, Milk, Cheese, Fruit, Vegetables, Moss Litter, Steel Plates and Tubing.
Antwerp, Ghent and Dunkirk	27	Vegetables, Iron, and Steel.
Sweden	25	Paper, Paper Pulp, Box Boarding.
U.S.A. and Canada	22	Flour, Sugar, Pitch, Ochre, Tinned Fruit and Meat, Cheese, Wire.
Baltic Ports	35	Timber, and Flax.
Norway	29	Paper and Paper Pulp.
North Africa	18	Esparto Grass, Phosphates, Oil Cake and Sugar.
West Indies, etc.	10	Sugar and Oil.
Soviet Russia	15	Timber and Flax.
Other European Port	16	Timber, Cork, Pyrites, Phosphates, Oilcake, Grain and Vegetables.

TABLE XXXIX.

Port Sanitation.

Details of Action taken:—

Total Number of verbal intimations ...	...	...	...	...	...	361
Total Number of rat notices issued ...	...	...	...	...	...	6
Total Number of visits to ships ...	...	...	...	...	...	849
Total Number of ships from infected or suspected ports ...	...	...	...	...	...	102
Do.					(Direct)	16
Do.					(Indirect)	86
Nuisances and defects attended to:—156						
Forecastles cleaned out ...	...	...	...	...	...	24
Messrooms cleaned ...	...	...	...	...	...	12
Galleys and store-rooms cleaned ...	...	...	...	...	...	6
Accumulation of food refuse ...	...	...	...	...	...	8
Choked or defective W.C.'s ...	...	...	...	...	...	13
Dirty W.C.'s ...	...	...	...	...	...	19
Discharge of foul water on quay ...	...	...	...	...	...	28
Ventilators obstructed ...	...	...	...	...	...	36
Excessive smoke emission ...	...	...	...	...	...	3
Defective Ports ...	...	...	...	...	...	0
Leaking deck plates ...	...	...	...	...	...	0
Rat refuges destroyed ...	...	...	...	...	...	7

156

In addition the following work was carried out while the vessels were in Port :—

Fresh water tanks cleaned out ...	...	...	...	...	...	28
Forecastles washed or painted ...	...	...	...	...	...	61
Bathroom or wash-places painted ...	...	...	...	...	...	42
Galleys washed or painted ...	...	...	...	...	...	4
W.C.'s painted ...	...	...	...	...	...	46

TABLE XL.

BACTERIOLOGICAL LABORATORY.

Examinations carried out on behalf of the Department of Bacteriology.
University of St. Andrews, Medical School, Dundee.

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Wassermann Tests...	3619	4107	4177	4588	4419	4053	4179	4452	4367	4562	5363
Microscopical and other examinations under V.D. Scheme for—											
Syphilis ...	42	31	36	109	51	56	49	33	36	44	52
Gonorrhœa ...	2227	2933	3301	3019	2779	3714	3725	4266	4687	3955	4406
Swabs for diphtheria ...	2560	1898	1500	1197	962	823	857	894	1156	1077	982
Widal tests for enteric fever ...	236	106	228	206	212	150	228	262	164	146	136
Sputum examinations ...	299	310	302	261	291	300	329	359	360	315	321
Examination of fæces, blood cultures, etc., for—											
Enteric fever ...	47	26	131	100	214	63	240	321	128	125	160
Dysentery ...	2	11	37	70	50	112	78	165	149	278	221
Infantile Diarrhœa ...	3	7	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	—	—	90	166	180	210	180	236	162	184	243
Milk examinations ...	97	75	74	105	1220	1481	78	84	1179	121	213
Food Poisoning—											
No. of outbreaks ...	(2)	(2)	(1)	(2)	(0)	(0)	(2)	(7)	(15)	(9)	(9)
No. of examinations ...	44	27	14	11	0	0	2	7	25	12	43
Cerebro spinal meningitis ...	10	16	13	24	12	15	25	34	41	61	76
Other examinations ...	45	35	19	105	303	367	417	631	629	643	545
Totals ...	9231	9582	9922	9960	10693	10350	10387	11737	12058	11524	12761

[†] Includes 1130 and 370 respectively for T.B. and for Epizootic Abortion of cattle, in collaboration with the Empire Marketing Board and the Department of Health for Scotland.

[‡] Includes 102 specimens of Milk examined in collaboration with the Scottish Milk Marketing Board.

TABLE XI.L.

DISINFECTION, 1937.

The table submitted below details the year's work in regard to disinfection.

MONTH	Bed Ticks	Beds	Mattresses	Bed Covers	Blankets	Sheets	Bolster Ticks	Bolster Cases	Pillow Cases	Bed Panes	Aprons	H'dkerchiefs	Table Cloths	Towels	Wearing Apparel	Miscellaneous Articles	Total No. of Articles	No. of Homes from which articles were removed
January	...	...	16	140	135	99	...	12	34	97	...	1	11	4	1006	470	2034	304
February	...	...	12	106	100	61	1	8	20	55	...	...	5	1	810	354	1533	220
March	1	...	22	164	157	104	...	18	29	70	...	...	...	5	584	263	1424	165
April	...	...	13	154	90	78	...	14	11	60	...	1	3	6	476	192	1099	129
May	...	...	16	178	122	85	...	7	14	61	...	...	7	8	279	96	873	86
June	...	...	120	194	766	110	...	15	127	83	...	1	10	10	363	147	1946	127
July	...	...	16	156	166	121	...	23	16	90	...	...	5	11	357	181	1142	104
August	207	...	11	161	375	129	...	27	21	106	...	...	11	7	318	107	1480	113
September	...	...	20	218	170	168	...	42	25	113	...	1	13	8	453	176	1407	156
October	...	...	18	298	227	231	...	50	24	174	...	1	22	11	589	196	1841	187
November	1	...	50	264	507	293	1	61	24	197	...	...	26	12	974	431	2621	256
December	1	...	13	229	263	206	4	39	18	111	...	...	14	10	1157	589	2654	284
Totals	210	...	507	2262	2878	1685	6	316	363	1217	...	5	134	93	7366	3202	20054	2131

The following figures relate to the articles disinfected and the houses concerned each year since 1926 :—

Articles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Houses concerned	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1926	29,430	22,721	16,642	20,976	19,994	15,892	20,265	28,714	20,408	16,730	14,637	20,054	1937	1936	1935	1934	1933	1932	1931
2,042	1,709	1,276	1,718	1,748	1,477	1,981	2,515	2,167	1,834	1,574	2,131	2,054	2,054	2,054	2,054	2,054	2,054	2,054	2,054

TABLE XLII.

FACTORIES, WORKSHOPS AND WORKPLACES.

YEAR 1937.

1 Inspection of Factories, Workshops and Workplaces, including Inspections made by Sanitary Inspectors.

PREMISES	Inspection	NUMBER OF	
		Written Notices	Occupiers Prosecuted
Factories (including factory laundries) ...	481	0	0
Workshops (including workshop laundries) ...	1189	0	0
Workplaces (other than outworkers' premises) ...	366	0	0
	2,036	0	0

2. Defects found in Factories, Workshops and Workplaces

PARTICULARS	NUMBER OF DEFECTS			No. of Offences in respect to which Prosecu- tions were Instituted
	Found	Remedied	Referred to H.M. Inspector	
Nuisances under the Public Health Acts†—				
Want of cleanliness	80	80	...	...
Want of ventilation ... ..	...	...	...	...
Overcrowding	1	1	...	...
Want of drainage of floors ... ..	...	...	...	...
Other nuisances ... ..	...	...	...	...
Sanitary accommodation—				
Insufficient	19	6	...	...
Unsuitable or defective	9	8	...	...
Not separate for sexes	5	2	...	...
Offences under the Factory and Workshop Acts—				
Illegal occupation of underground bakehouse (S. 101) ... ..	...	...	...	...
Other offences	0	0	...	...
excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Scottish Board of Health (Factories and Workshops Transfer of Powers) Order, 1921)				
Total	114	97	...	...

†Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901 as remediable under the Public Health Acts.

TABLE XLIII.

DUNDEE INFANT HOSPITAL.

Year to 31st December, 1937.

In Hospital, 1st January, 1937	...	...	...	34
Admitted in 1937	...	...	...	135
				<hr/>
				169

DISCHARGED—

Relieved	...	...	115	
Unrelieved	...	...	0	
Taken home against advice	...	...	1	
Transferred to Dundee Royal Infirmary	...	...	5	
" King's Cross Hospital	...	...	3	
Sent Home—Contacts	...	...	2	
				<hr/>
				126
				<hr/>
				43

DIED—

Broncho Pneumonia	...	...	4	
Chronic Broncho Pneumonia	...	...	1	
Marasmus	...	...	4	
(2 were admitted moribund)	...	...	—	9
				<hr/>

In Hospital, 31st December, 1937 ... 34

Death Rate ... 6.6 per cent.

THE CASES TREATED WERE—

Marasmus	...	...	77	
Debility	...	...	20	
Rickets	...	...	8	
Pyelitis	...	...	2	
Broncho-Pneumonia	...	...	9	
Infantile Eczema	...	...	1	
Gastro-Enteritis	...	...	12	
Nephritis	...	...	1	
Pyloric Stenosis	...	...	2	
Abdominal Tuberculosis	...	...	1	
Bronchitis	...	...	2	
				<hr/>
				155

Total Patient Days	...	...	10,975
Highest Daily Number	...	...	35
Lowest Daily Number	...	...	25
Average	...	...	30.06

TABLE XLIV.
 VENEREAL DISEASES SCHEME, 1931 to 1937.

Patients suffering from Venereal Diseases, attending the V.D. Centre, who:—

Year	Left before completing a course of treatment.						Left after completing a course of treatment but before final tests as to cure.						Were transferred to other Centres.						Were discharged from Centre after completion of treatment.						Were remaining on treatment at end of year.						Totals of all cases attending throughout the year.				
	Sexes.			Males.			Females.			Both			Sexes.			Males.			Females.			Both			Sexes.			Males.					Females.		
	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per	No.	Cent.	Per			No.	Cent.	Per
1931	145	8	53	5	92	12	108	6	57	5	51	7	138	7	95	8	43	6	406	21	305	27	101	14	777	41	427	37	350	47	1953	1114	739		
1932	158	8	56	5	102	11	155	8	58	5	97	10	118	6	62	6	56	6	423	21	377	27	116	12	850	42	422	39	428	46	2012	1085	920		
1933	124	7	59	6	65	7	150	9	61	6	89	10	129	7	79	8	50	5	405	22	240	25	165	19	714	40	367	38	347	38	1821	944	877		
1934	315	19	156	16	159	22	103	6	56	5	47	6	82	4	63	6	19	2	247	18	219	22	28	4	690	40	358	40	332	47	1696	983	713		
1935	301	16	116	10	185	24	79	4	50	4	29	4	133	7	103	9	30	4	309	16	270	23	39	5	757	40	438	38	319	45	1910	1159	751		
1936	183	9	89	7	94	13	74	4	62	5	12	2	141	7	123	10	18	2	366	18	324	26	42	6	924	46	443	35	481	63	2000	1258	742		
1937	275	12	102	8	173	17	76	3	50	4	26	3	134	6	105	8	29	3	387	17	336	27	51	5	1092	48	468	37	621	61	2267	1251	1061		

TABLE XLV.

Number of New Cases attending the V.D. Treatment Centre each year since 1926.

DISEASE.	1926.		1927.		1928.		1929.		1930.		1931.		1932.		1933.		1934.		1935*.		1936*.		1937*.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syphilis...	115	264	102	140	92	155	127	151	189	209	137	158	116	164	104	131	103	99	117	95	126	104	155	202
Gonorrhoea ...	254	44	243	65	247	55	291	95	335	64	288	106	285	205	225	165	292	115	384	144	376	185	312	177
Mixed infections	14	22	19	16	16	21	20	37	56	45	26	24	—	—	—	—	—	—	—	—	—	—	—	—
Other V.D. ...	99	—	56	—	66	1	65	—	69	—	49	—	47	—	55	—	81	—	79	—	101	—	115	—
Not Suffering from V.D. ...	115	92	91	70	157	104	165	124	124	118	225	177	178	117	138	155	140	152	186	131	207	114	217	131
Totals ...	597	422	511	291	578	512	668	407	775	454	725	445	624	486	522	449	616	366	766	370	810	403	797	510
Totals (both sexes)	1,019	802	890	1,075	1,207	1,168	1,110	971	982	1,136	1,213	1,307												

*These figures apply to new cases only and do not include cases removed from the register during any previous year who returned during the year under report for treatment or observation of the same infection.

TABLE XLVI.

Number of Attendances at V.D. Treatment Centre each year since 1926.

	1926.		1927.		1928.		1929.		1930.		1931.		1932.		1933.		1934.		1935.		1936.		1937.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syphilis. ...	2,972	6,668	2,574	6,056	2,665	5,137	4,081	5,281	6,477	6,506	7,109	5,085	5,589	6,493	5,304	6,018	4,538	4,339	4,254	4,999	4,742	5,610	5,813	6,425
Gonorrhoea ...	9,169	5,815	10,782	5,502	9,541	5,350	11,717	5,639	18,243	5,751	17,877	5,944	18,072	7,729	16,710	7,568	16,853	7,847	21,246	9,848	24,724	8,325	22,985	8,568
Mixed Infections	580	2,557	674	2,275	942	1,726	1,265	2,309	2,226	2,865	1,566	1,327	—	—	—	—	—	—	—	—	—	—	—	—
Other V.D. ...	701	—	453	—	422	6	351	—	565	—	569	—	778	—	682	—	549	—	792	—	1,150	—	1,825	—
Not Suffering from V.D. ...	324	685	317	441	426	580	517	857	406	956	1,049	911	854	949	746	757	467	748	430	1,079	541	728	477	758
Totals ..	13,746	13,721	14,800	14,272	13,996	12,779	17,939	14,085	27,917	16,018	28,170	15,267	25,295	15,171	23,472	14,343	22,407	12,934	26,722	15,926	31,037	14,863	31,966	15,751
Totals (both sexes)	27,467	29,072	26,775	31,995	43,955	41,437	40,464	37,815	55,341	42,648	46,817													

TABLE XLVII.

Doses of Arseno-Benzol Compounds Issued.

		Treatment Centre.	Other Institutions.	Medical Practitioners.	Total.
1919	...	1,958	13	141	2,112
1920	...	6,362	18	472	6,852
1921	...	6,280	239	358	6,877
1922	...	5,135	239	239	5,613
1923	...	5,224	198	123	5,545
1924	...	3,887	275	504	4,666
1925	...	2,836	341	398	3,575
1926	...	2,286	264	423	2,973
1927	...	2,826	18	272	3,116
1928	...	2,997	154	253	3,404
1929	...	3,673	235	342	4,250
1930	...	6,884	380	388	7,552
1931	...	3,362	113	327	3,802
1932	...	3,582	126	182	3,890
1933	...	3,594	118	216	3,928
1934	...	2,170	660	112	2,942
1935	...	2,874	532	321	3,727
1936	...	4,110	262	296	4,668
1937	...	5,858	486	345	6,689

TABLE XLVIII.

LABORATORY WORK—The following examinations were carried out under the V.D. scheme each year since 1925 :—

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Wassermann Tests	3,513	3,660	3,619	4,107	4,177	4,588	4,419	4,053	4,179	4,462	4,367	4,562	5,363
Microscopical and other Examinations	1,725	1,898	2,269	2,964	3,337	3,128	2,830	3,770	3,774	4,299	4,687	3,999	4,458
	5,236	5,558	5,888	7,071	7,514	7,716	7,249	7,823	7,953	8,761	9,054	8,561	9,821

TABLE XLIX.

Unsound Food. All Seized at the Public Slaughter-Houses.

Number of Seizures, Weight (in lbs.) of Meat Seized, and Reasons for Seizure.
FOR YEAR ENDING 31st DECEMBER, 1937.

DISEASE	BEEF			VEAL			MUTTON			PORK			TOTAL	
	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight
(a) Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Other Diseases :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscesses, Tumours, and Cysts	408	1,601	...	...	48	175	...	...	95	115	...	...	551	1,891
Actinomycosis	165	824	...	...	...	...	...	...	...	...	...	...	165	824
Blackleg	1	254	...	...	...	...	...	...	...	...	...	...	1	254
Decomposition	6	1,092	...	...	...	...	...	...	...	...	...	...	...	...
Dropsical Conditions	13	2,257	3	200	...	...	21	230	2	53	...	...	29	1,375
Fevered Conditions	47	9,782	7	...	...	...	93	1,771	9	560	...	...	118	4,788
Fractures and Bruises	83	4,002	1	84	...	...	111	2,597	54	376	...	...	219	12,755
Inflammation of Abdominal Organs	365	4,240	3	...	...	...	42	413	23	376	...	...	149	4,875
Jaundice	3	1,810	...	...	...	...	161	435	30	246	...	...	559	4,919
Melanosis	2	...	...	...	...	...	1	29	3	189	...	...	7	2,028
Pneumonia	46	1,479	...	...	...	...	1	57	...	...	...	...	3	57
Rheumatism	11	941	...	...	...	...	41	503	12	40	...	...	99	2,022
Septic Conditions	15	8,259	13	597	...	...	25	114	11	215	...	...	47	1,270
Swine Fever	...	...	...	...	...	...	24	1,056	13	1,533	...	...	65	11,445
Uraemia	2	751	...	...	...	...	...	...	1	74	...	...	1	74
Wasted Conditions	1	3	3	44	...	...	1	65	...	...	...	...	3	816
Totals	4,438	266,881	31	977	585	7,739	348	7,724	5,402	283,321	...	...	...	...

TABLE L.

Shows the number of the different kinds of Animals Slaughtered at the Public Slaughter-houses each month during 1937, also the numbers of their carcasses found to be Diseased or Unsound, and the weight of each class seized and destroyed.

MONTH	Animals Slaughtered				Numbers of their Carcasses Diseased or Unsound				Weight (in lbs.) condemned from Carcasses of Animals Slaughtered on the Premises				
	Cattle	Calves	Sheep	Pigs	Cattle	Calves	Sheep	Pigs	Beef	Veal	Mutton	Pork	Total
1937													
January ...	1,242	12	2,255	429	537	2	174	22	24,940	91	542	447	25,820
February ...	1,245	18	2,137	458	574	...	152	33	26,739	...	460	540	27,739
March ...	1,428	27	2,314	530	475	6	212	26	18,317	248	462	501	19,528
April ...	1,237	14	1,847	399	418	4	133	37	17,000	199	573	758	18,350
May ...	1,528	8	1,948	306	444	1	125	21	23,943	...	309	636	24,888
June ...	1,269	18	1,952	283	452	3	57	25	22,529	25	381	466	23,401
July ...	1,112	6	1,685	225	369	1	69	35	16,597	54	121	975	17,747
August ...	1,271	20	2,038	242	464	5	92	39	22,547	156	656	417	23,756
September ...	1,315	22	2,059	321	454	1	92	34	17,498	...	208	1,129	18,835
October ...	1,250	23	2,055	402	439	7	71	31	25,415	131	387	576	26,509
November ...	1,312	13	2,160	494	469	1	114	34	19,700	51	408	634	20,793
December ...	1,382	13	2,216	561	435	1	129	44	20,038	42	557	277	20,914
Totals ...	15,371	194	24,646	4,650	5,130	32	1,420	381	255,263	977	4,664	7,156	268,060

TABLE LI.

Shews the number of the different kinds of Carcases, dressed and undressed, brought to the Slaughter-houses, each month during 1937, with the numbers found to be diseased or unsound, and the weight of each class seized and destroyed on that account.

MONTH	Carcases brought in				Numbers of them Diseased or Unsound				Weight (in lbs.) Seized and Condemned from Carcases brought in				
	Cattle	Calves	Sheep	Pigs	Cattle	Calves	Sheep	Pigs	Beef	Veal	Mutton	Pork	Total
1937													
January ...	250	...	353	32	4	...	14	1	605	...	174	13	792
February ...	199	...	378	68	1	...	15	3	...	...	294	207	501
March ...	287	...	413	50	3	...	32	1	24	...	659	44	727
April ...	193	1	470	54	12	...	11	1	1,362	...	265	6	1,633
May ...	278	1	857	53	4	...	13	1	2,005	...	426	14	2,445
June ...	224	...	462	40	3	...	4	...	44	...	59	...	103
July ...	295	...	704	44	5	...	4	1	1,064	...	83	26	1,173
August ...	280	...	534	41	7	...	7	1	1,801	...	195	200	2,196
September ...	240	...	459	31	...	...	6	1	89	...	149	10	248
October ...	311	...	559	50	6	...	8	...	2,221	...	269	10	2,500
November ...	216	...	388	46	2	1	8	1	1,374	...	185	29	1,588
December ...	324	...	390	78	4	...	16	1	1 029	...	317	9	1,355
Totals ...	3,097	2	5,947	587	51	1	138	12	11,618	...	3,075	568	15,261
Table L.	15,371	194	24,646	4,650	5,130	32	1,420	381	255,263	977	4,664	7,156	268,060
Total of Tables L. and LI.	18,468	196	30,593	5,237	5,181	33	1,558	393	266,881	977	7,739	7,724	283,321

TABLE LII.

The following is a synopsis of the organs seized and condemned in addition to the foregoing at the Slaughter-houses for the full year :—

CATTLE ORGANS		SHEEP ORGANS		PIGS' ORGANS	
Cows' Udders ...	2,351	Livers ...	39	Udders ...	38
Livers ...	2,375	Plucks ...	535	Plucks ...	175
Lungs ...	2,851	Kidneys ...	765	Kidneys ...	190
Hearts ..	1,056	Lungs ...	805	Livers ...	84
Kidneys ...	2,501			Lungs ...	41
Heads ..	1,307	Total ...	2,144		
Tongues ...	1,353			Total ...	528
Skirts ...	2,498				
Total ...	16,292				

TINNED AND FROZEN MEAT SEIZED FOR DECOMPOSITION.

Frozen Meat ...	185 lbs.
Frozen Ox Kidneys ...	14 „
Total ...	199 lbs.

The number of Carcasses wholly or partially condemned for Tuberculosis during each year for the last five years were as follows :—

YEAR	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Pigs	Total
1933	236	1,399	17	895	2	...	93	2,642
1934	309	1,281	17	831	1	...	125	2,564
1935	287	1,520	21	985	1	...	107	2,921
1936	332	1,722	35	1,161	2	...	121	3,373
1937	243	1,862	27	1,138	1	...	94	3,365

Statement shewing number of Animals Slaughtered, Wholly Condemned, Partially Condemned, and Weight (in lbs.) of Meat Condemned during the year 1937 :—

Class of Animal.		NUMBER OF ANIMALS.			Weight (in lbs.) of Condemned Meat.
		Slaughtered.	Wholly Condemned.	Partially Condemned.	
Cattle ...		15,565	273	4,889	246,230
Sheep ...		24,646	70	1,350	4,764
Pigs ...		4,650	38	343	7,156

TABLE. LIII.

The totals for the years 1921 to 1936 were:—

Year.	Carcases Examined.				Numbers Diseased or Unsound.				Weight (in lbs.) of Meat Seized and Condemned.						
	Cattle.		Sheep.		Pigs.	Cattle.		Sheep.		Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
	Calves.	Calves.	Calves.	Calves.		Calves.	Calves.								
1921	17,914	182	26,357	2,717	633	32	214	52	144,858	2,278	9,353	4,572	161,061		
1922	18,825	207	31,139	4,199	879	38	350	120	188,971	1,762	13,537	6,974	211,244		
1923	18,756	138	26,286	3,570	958	33	318	113	219,803	2,022	12,319	8,362	242,506		
1924	18,276	184	25,691	4,037	1,382	18	485	242	209,771	714	13,219	9,875	233,579		
1925	18,139	198	25,831	3,669	1,561	11	344	141	165,533	578	8,321	5,449	179,881		
1926	17,469	145	28,416	2,586	3,161	22	523	127	203,663	1,043	8,491	5,605	218,802		
1927	18,224	147	33,983	3,058	3,263	28	778	182	184,577	949	8,191	3,943	197,660		
1928	19,328	126	31,697	4,171	2,801	19	1,262	298	163,617	1,115	6,920	6,741	178,393		
1929	18,244	126	31,971	3,443	3,482	29	1,682	179	160,319	639	7,099	3,404	171,461		
1930	18,689	88	31,590	2,996	3,653	19	1,133	299	170,738	328	9,144	4,510	184,720		
1931	18,255	90	31,915	3,640	3,831	10	1,321	229	194,921	311	8,541	5,396	209,169		
1932	15,847	134	36,484	4,158	4,723	14	2,522	253	205,963	447	6,033	4,383	216,826		
1933	15,394	116	34,754	4,189	5,031	19	2,468	512	215,788	408	3,824	5,686	225,706		
1934	16,016	201	33,285	4,870	4,391	22	2,369	320	250,083	898	4,982	5,556	261,519		
1935	17,770	207	33,444	5,490	4,431	20	1,748	387	274,981	725	5,313	6,340	287,359		
1936	18,782	156	33,143	5,440	4,826	34	1,700	464	275,404	766	7,015	6,263	287,448		

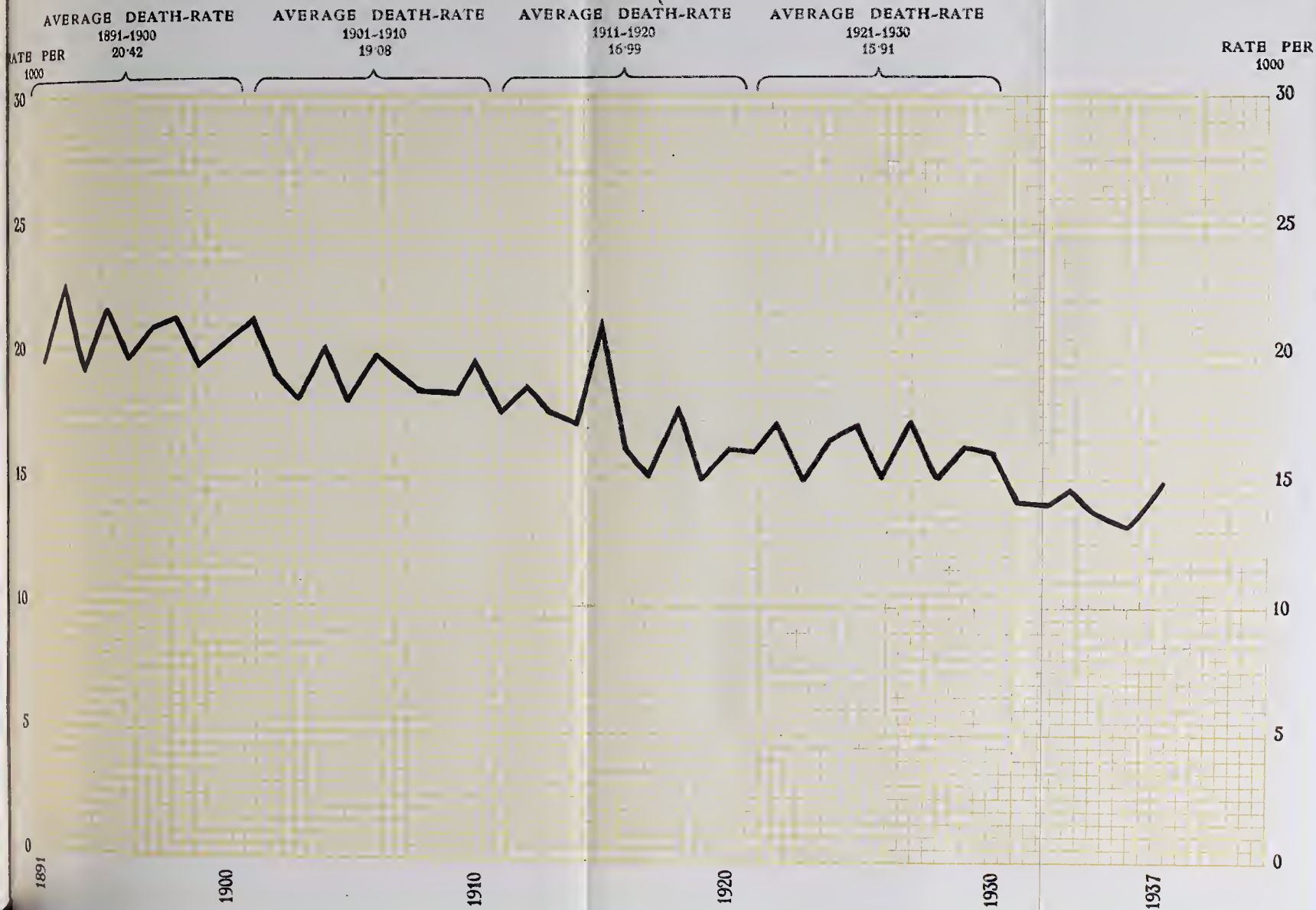
CITY OF DUNDEE

1

DEATH RATE per 1000 Population

(at all ages and from all causes)

1891-1937



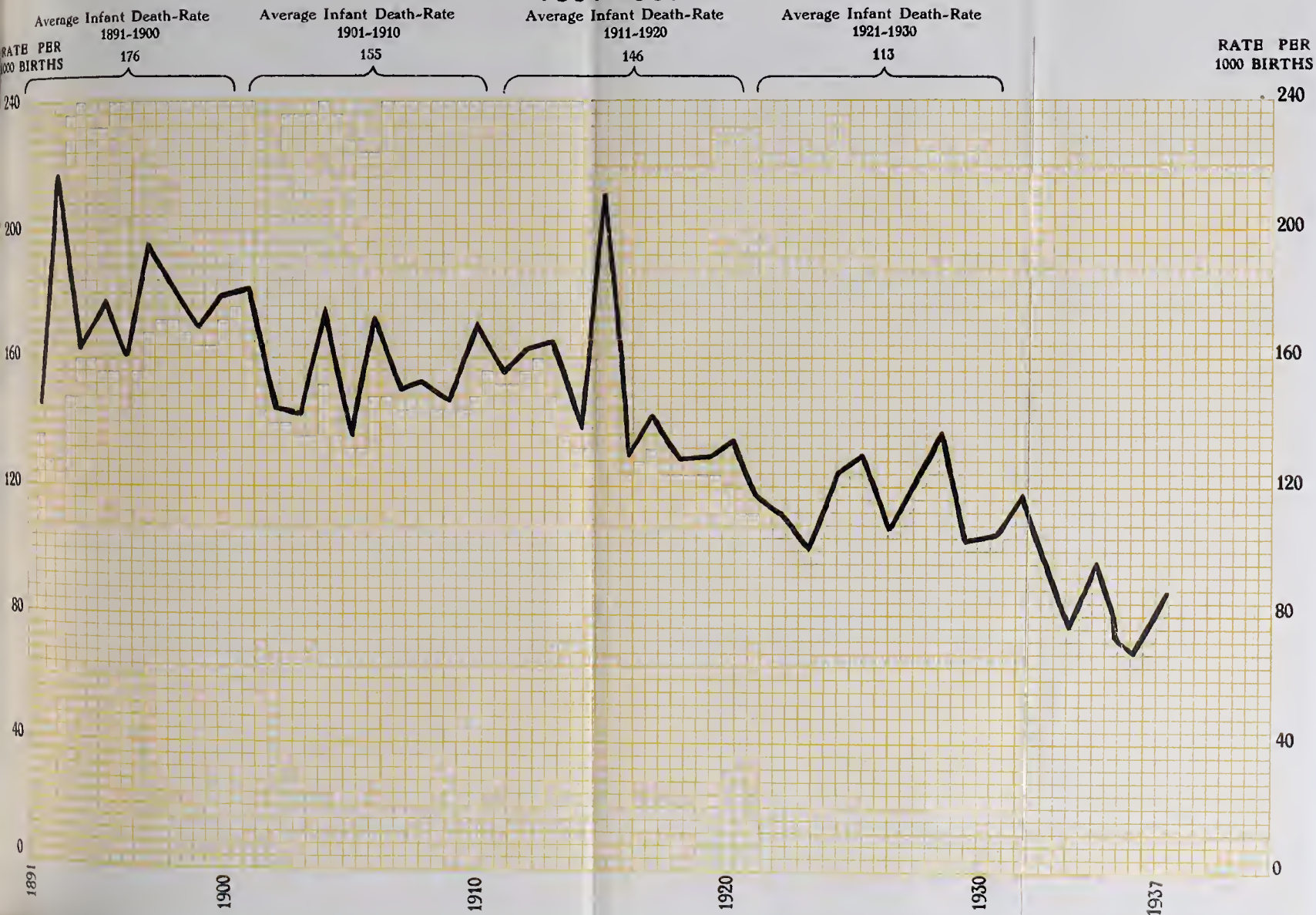
CITY OF DUNDEE

2

INFANT MORTALITY

INFANT DEATHS (under 1 Year) PER 1000 BIRTHS

1891-1937



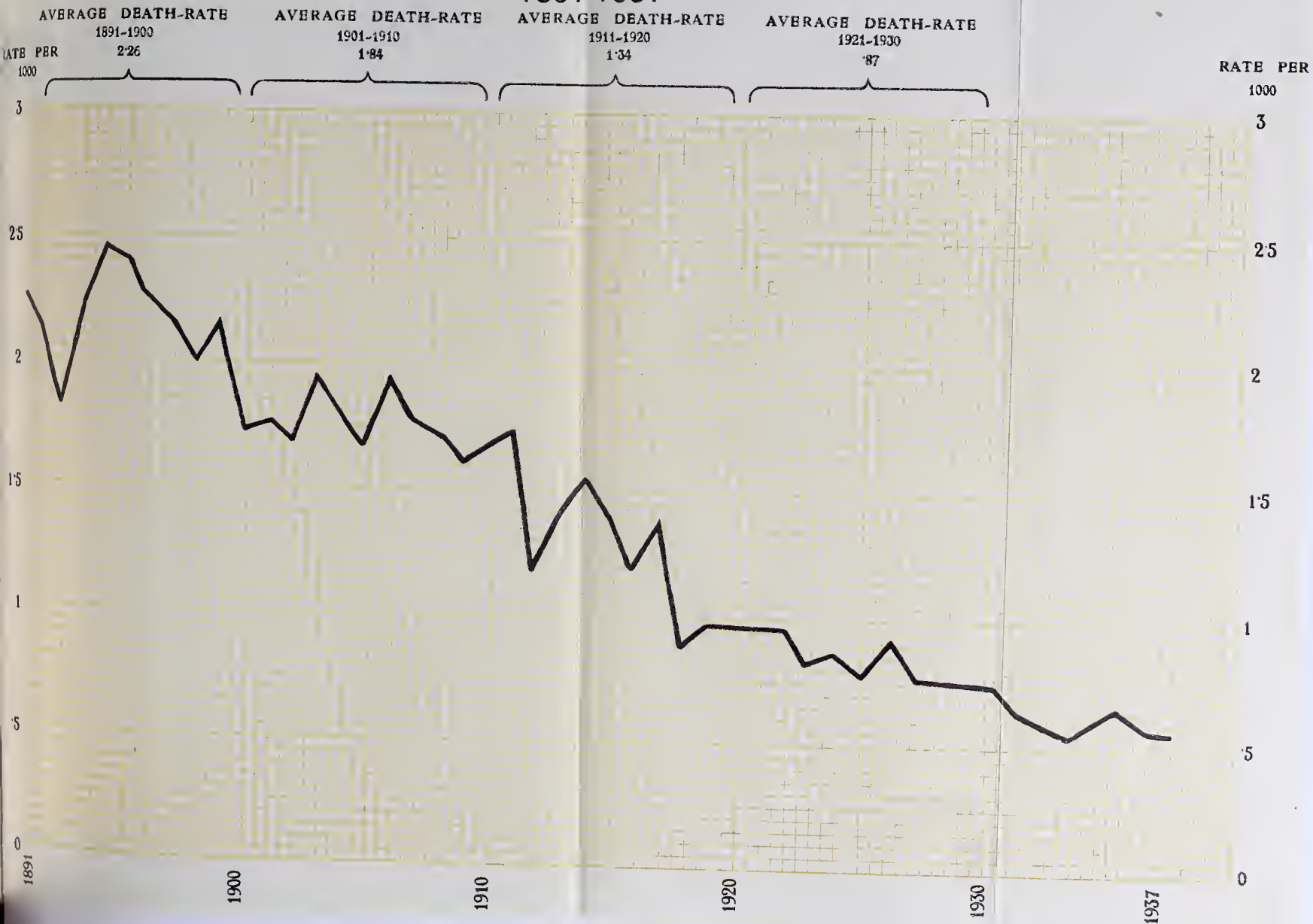
CITY OF DUNDEE

PULMONARY TUBERCULOSIS

3

DEATH RATE per 1000 Population

1891-1937



City of
Baltimore

1770-1780

1770 1771 1772 1773 1774 1775 1776 1777 1778 1779 1780

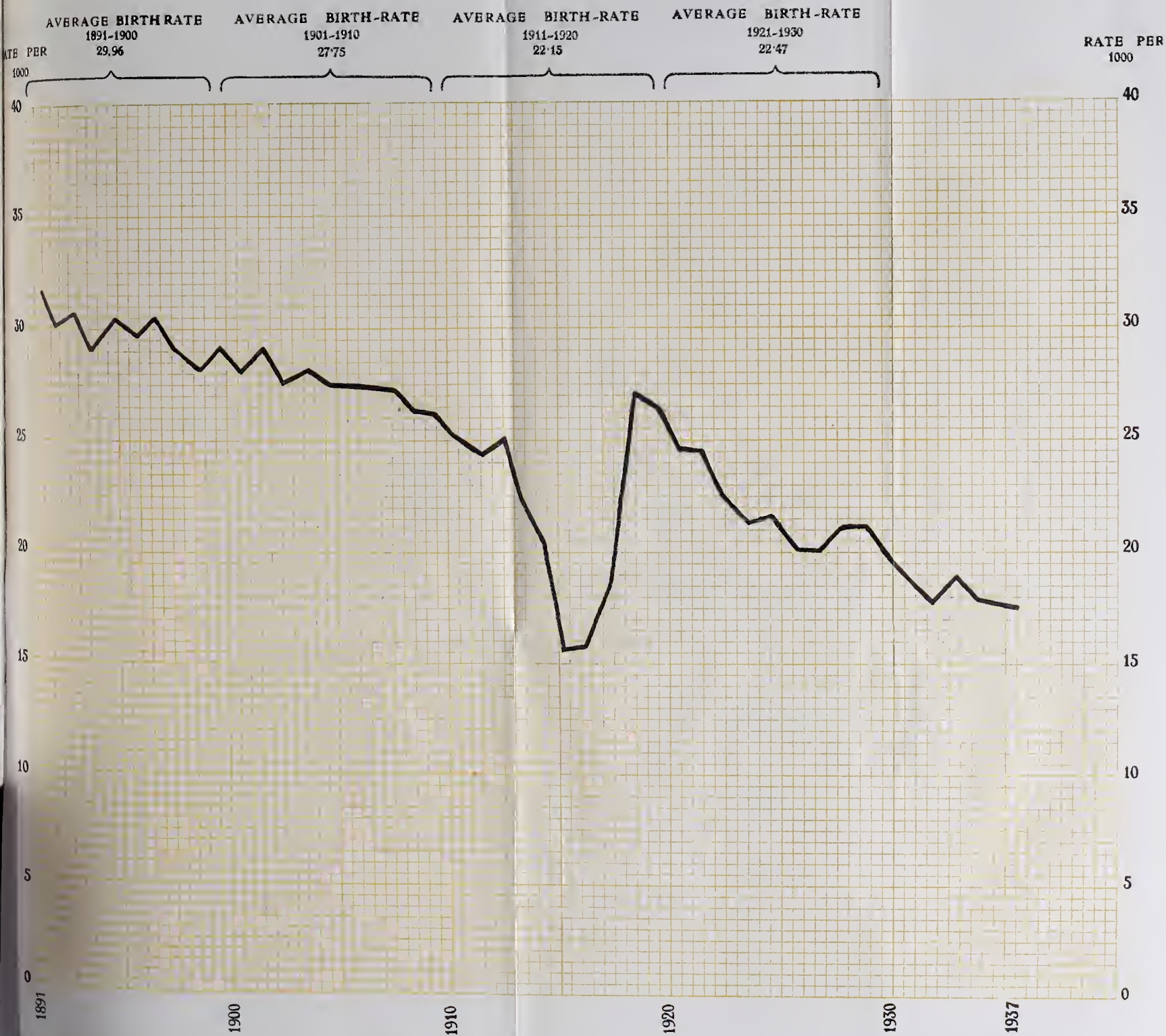


CITY OF DUNDEE

4

BIRTH RATE per 1000 Population

1891-1937



CITY OF

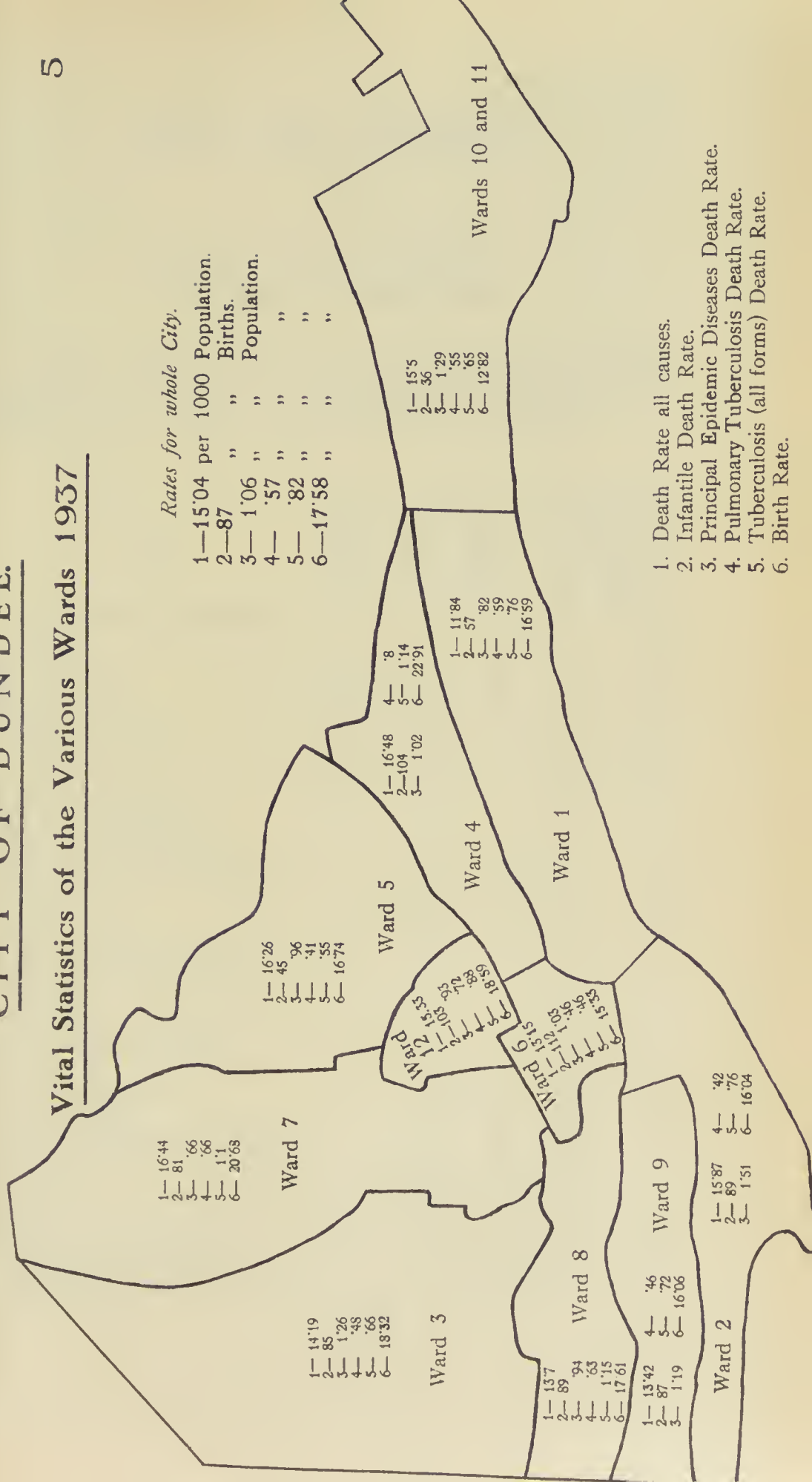
BIRTH RATE

1900-1907

PER 1,000 BIRTHS - 1900-1907



Vital Statistics of the Various Wards 1937



Rates for whole City.

1—15'04	per 1000	Population.
2—87	"	Births.
3—1'06	"	"
4—'57	"	Population.
5—'82	"	"
6—17'58	"	"

- 1. Death Rate all causes.
- 2. Infantile Death Rate.
- 3. Principal Epidemic Diseases Death Rate.
- 4. Pulmonary Tuberculosis Death Rate.
- 5. Tuberculosis (all forms) Death Rate.
- 6. Birth Rate.

KING'S CROSS HOSPITAL.

Report by Dr. W. B. CLARK,
Senior Resident Medical Officer.

During the year under consideration, 1937 1,985 patients were admitted to the hospital. The following table shows the number of all diseases according to the Notifications or Intimations.

Disease	In Hospital 31st Dec., 1936	Admitted during 1937	Discharged during 1937	Died during 1937	Remaining in Hospital on 31st Dec., 1937
Diphtheria and membranous croup,	22	313	297	15	23
Erysipelas,	6	107	106	5	2
Scarlet fever,	39	577	544	8	64
Enteric fever,	—	10	8	—	2
Measles,	1	9	8	2	—
Whooping cough,	9	159	126	39	3
Chickenpox,	—	4	4	—	—
Cerebro spinal fever,	—	9	3	6	—
Encephalitis lethargica,	—	—	—	—	—
Ophthalmia neonatorum, ...	3	13	15	—	1
Pneumonia, lobar and broncho	4	311	258	28	29
Bronchitis,	3	110	98	4	11
Vulvo vaginitis,	2	2	4	—	—
Measles with pneumonia, ...	—	3	3	—	—
Whooping cough with pneu- monia,	—	2	1	—	1
Scarlet fever with chickenpox	—	3	3	—	—
Influenzal pneumonia,	—	2	1	—	1
Influenza,	—	130	101	29	—
Influenza with croup,	—	1	1	—	—
Puerperal fever,	6	84	77	7	6
Diphtheria with scarlet fever,	1	5	5	—	1
German measles,	—	21	10	—	11
Dysentery,	—	46	43	2	1
Pyrexia,	—	1	1	—	—
Croup with bronchitis,	—	2	2	—	—
Scarlet fever, c. measles, c. whooping cough,	—	1	1	—	—
Gastro enteritis,	—	42	38	4	—

Streptococcal tonsillitis,	—	1	1	—	—
Food poisoning,	—	1	—	1	—
Pemphigus neonatorum, ..	—	2	1	1	—
Observation rash,	—	1	1	—	—
Scarlet fever with whooping cough,	—	1	1	—	—
Herpes with aberrant vesicles,	—	1	1	—	—
Gastro enteritis with bron- chitis,	—	1	1	—	—
Chickenpox with bronchitis,	—	1	1	—	—
Gastro enteritis with pneu- monia,	—	1	—	1	—
Mumps,	3	3	6	—	—
Diarrhœa with bronchitis, ...	—	1	1	—	—
Healthy infant,	—	4	3	—	1
Totals,	99	1,985	1,775	152	157

Average duration of stay,	20.62 days
Average daily number of patients,	108.91
Highest daily number of patients,	196 Dec. 5
Lowest daily number of patients,	51 May 29
Number of patient days,	39,752

There were 152 deaths, giving a hospital case mortality of 7.9%.

Scarlet Fever.

Of the 562 cases notified as scarlet fever or scarlet fever and an intercurrent disease discharged during the year, the diagnosis was confirmed in 496 cases. Amongst the 66 cases erroneously diagnosed, the following conditions were noted:—

Tonsillitis,	25	
German measles,	2	
Whooping cough with dyspeptic rash,	2	
Dyspeptic rash,	6	
Diphtheria,	2	
Acute otitis media,	1	
Burn,	2	1 Died
Osteomyelitis of leg,	1	
Enteritis,	1	
Cervical adenitis,	3	
Simple rhinitis,	1	
Impetigo,	1	
Tuberculous cervical adenitis with chicken- pox,	1	
Tuberculous ulcer of neck,	1	
Pneumonia,	5	
No disease,	12	

To the 496 cases in which the diagnosis was confirmed must be added 11 cases of scarlet fever notified as follows :—

Diphtheria	9	(2 had double infection and 1 died)
Influenza	2	

Thus the total becomes 507.

Intercurrent infection occurred in 23, viz. :—

Diphtheria,	1
K.L.B. carrier,	3
Whooping cough,	1
Chickenpox,	8
Mumps,	7
German measles,	3

There were 8 deaths, giving a case mortality of 1.6%.

The causes of death were as follows :—

1. Aged 2 years—Septic type, complicated by bilateral broncho pneumonia.
2. Aged 5 years—Septic type, complicated by bilateral lobar pneumonia and bilateral streptococcal empyema.
3. Aged 6 years—Septic type, complicated by toxic diphtheria of fauces, nose and conjunctiva.
4. Aged 53 years—Hæmorrhagic type, complicated by nephritis and uræmia.
5. Aged 3½ years—Simple type, complicated by nephritis and uræmia.
6. Aged 2¼ years—Post scarlet nephritis on admission and complicated by empyema.
7. Aged 1 8/12 years—Simple type, complicated by broncho pneumonia on admission.
8. Aged 29 years—Simple type, complicated by tonsillar infection; death during anæsthesia for removal of tonsils.

The following are the complications which were noted :—

Cervical adenitis,	51 cases	10.1%
Simple rhinitis,	59 cases	11.6%
Purulent rhinitis,	34 cases	6.6%
Otorrhœa,	22 cases	4.3%
Nephritis,	32 cases	6.3%
Arthralgia and Arthritis,	13 cases	2.5%
Coccal tonsillitis,	10 cases	2.0%

Tonsils and Adenoids were removed in 8 cases.

No case required mastoidectomy.

Relapse occurred in 3 cases (0.6%).

Antitoxic serum was administered to 65 cases, or 12.6%.

Most of the cases were of the mild simple type. There were four of the toxic and nine of the septic types (three died), and two of the hæmorrhagic type (one died).

Diphtheria.

The diagnosis was confirmed in 180 of the 317 notified as suffering from diphtheria, or diphtheria with intercurrent infection, and discharged during the year. The cases not confirmed as diphtheria included :—

Acute follicular tonsillitis,	90	
Simple laryngitis,	24	
Scarlet fever,	7	
Broncho pneumonia,	5	4 died
Whooping cough,	1	died
Otitis media,	1	
Simple rhinitis,	1	
Granuloma eyelid,	1	
No disease,	4	

The addition of 2 cases admitted as croup and accepted as diphtheria, and of 1 case erroneously diagnosed scarlet fever and of 1 case suffering from diphtheria in addition to the disease notified (scarlet fever), brings the total to 184 cases.

The number of deaths occurring in the accepted cases was ten, making the case mortality 5.4%.

Fatal Cases.

Of the 10 deaths, seven occurred in patients who came under treatment on or after the fourth day of the disease. In no case was the Gravis strain of organism recovered. Tracheotomy was performed in two cases. The fatal cases were given an average of 36,000 units antitoxin, and part of that dose was given intravenously when practicable (6 cases).

Particulars of the fatal cases :—

	Infection	Age	Number of Days Ill.	
			On Admission	At Death
1.	Faucial,	5	4	12
2.	Faucial,	4½	4	12
3.	Faucial, nasal, conjunctival,	6	4	8

4. Faucial, laryngeal (tracheotomy performed),	5	4	7
5. Faucial, laryngeal,	5½	4	5
6. Faucial, laryngeal,	2	5	6
7. Laryngeal,	5	4	4
8. Laryngeal,	2	3	4
9. Laryngeal (tracheotomy performed),	1 2/12	2	3
10. Nasal (marasmus),	3/12	?	22 +

Types.

	No. of Cases	No. of Deaths
Faucial,	136	2
Faucial, laryngeal,	6	3
Faucial, nasal,	5	—
Faucial, conjunctival,	1	—
Faucial, nasal, conjunctival,	1	1
Laryngeal,	18	3
Nasal,	17	1

Antitoxin Administered.

500—6,000 Units, ...	52 cases or 28.2%
6,000—10,000 Units, ...	51 cases or 27.8%
10,000—20,000 Units, ...	41 cases or 22.2%
20,000—30,000 Units, ...	22 cases or 12.0%
30,000—50,000 Units, ...	14 cases or 7.6%
Over 50,000 Units, ...	4 cases or 2.2%

184

Comment.—Negative results from swabbing do not preclude Diphtheria, and the hospital is prepared to admit at any time for observation and treatment any case in which there is reasonable suspicion of diphtheria.

The operation for removal of tonsils and adenoids was performed for 5 cases with persistent positive swabs.

Post-Partum and Post-Abortum Infection.

The diagnosis of post-partum or post-abortum infection was confirmed in 58 of the 84 patients so notified, discharged during the year. The corrected diagnosis in the remaining 26 cases was :—

Mastitis,	5	
Thrombo-phlebitis,	5	
Mammary abscess,	4	
Incomplete abortion,	3	
Pyelitis,	2	
Simple anæmia,	2	
Cystitis and mastitis,	1	
Subinvolution uteri,	1	
Endocarditis,	1	(died)
Broncho pneumonia,	1	(died)
No disease,	1	

Five of the accepted cases died, making the total case mortality 8.6%.

Source of Infection.

Classified according to the place of confinement or abortion.

In patient's home in Dundee,	11 cases
In patient's home outwith Dundee,	17 „
In institutions in Dundee,	29 „
In institutions outwith Dundee,	1 „
	<hr/>
	58 „

Post-Partum Infection.

There were 52 cases, of whom 5 died. The age of mother :—

Age in years,	15—19	20—29	30—39	40+	Total
Recovered,	4	27	14	2	47
Died,	1	3	1	—	5

52

Hospital death-rate — 9.6%.

Number of Confinements.

1st confinement,	32 cases (5 died)	or 61.2%
2nd—4th confinement,	16 cases	or 30.8%
5th or more confinement,	4 cases	or 8%
	<hr/>	
	52 cases	

In six cases the mother was unmarried (one died).

Stay in Hospital.

The average stay in hospital of those who recovered was 29.2 days. The longest stay was 69 and the shortest 10 days.

Of those who died, the average duration in hospital was 13.5 days, the longest 38, and the shortest 4 days.

Nature of Confinement.

Normal confinement,	32
Instrumental delivery,	13
Retained products of conception,	3
Abnormal presentation,	2
Post-partum hæmorrhage,	1
B.B.A.,	1

52

Damage to Soft Parts.

In 26 cases (41%) there was some degree of damage to the birth canal, cervical laceration occurring along with perineal damage in 10 of these cases.

Clinical Types of Infection.

Group 1.—In which the infective process was localised in the uterus and/or external genitalia.

There were 43 of these cases, and 42 recovered. (Case mortality, 2.3%.)

The results of bacteriological investigation of uterine cultures were as follows:—

Hæmolytic streptococci,	18
Hæmolytic streptococci and other organisms,	2
Non-hæmolytic streptococci,	2
Non-hæmolytic streptococci and other organisms, ...	2
B.Coli, staphylococci,	17
No growth,	2

Urinary infection was present in 9 of these cases. Dilatation and curettage was performed in one case. Thrombo-phlebitis developed in 2 cases, of whom one died. Mammary abscess developed in one case, and was incised under local anæsthesia.

Particulars of fatal case:—Age 23. Para 1. Admitted on the 7th day of the puerperium from another institution, where she had been delivered by forceps, and the placenta being adherent was manually removed. Perineal laceration, pyelitis and uterine infection with B. Coli were present on admission. Thereafter thrombo-phlebitis developed in the right leg and later in the left. Death occurred suddenly 38 days after admission from pulmonary embolism.

Group 2.—In which the infection spread through or beyond the uterus to the appendages, cellular tissues or peritoneum, but remained non-septicæmic.

There were 6 cases in this group and 2 died.

The results of bacteriological investigation of uterine cultures were :—

Hæmolytic streptococci,	2
Non-hæmolytic streptococci,	1
Non-hæmolytic streptococci and other organisms, ...	1
B. Coli, staphylococci,	1
Gonococci,	1

In one case the inflammatory process tracked along the inguinal canal, and an abscess which pointed at the external ring was incised under general anæsthesia.

Particulars of the 2 fatal cases :—

1.—Age 18. Para 1. Normal confinement took place in another institution from which she was admitted on the 10th day of the puerperium with a history of onset of symptoms 8 days previously. There was no damage to the birth canal, but obvious signs of acute generalised peritonitis were observed. Laparotomy was performed shortly after admission, and profuse thick pus was found in the peritoneal cavity. Death occurred 5 days after admission. Bacteriological examination of the uterine culture and of the peritoneal fluid showed a mixed culture of non-hæmolytic streptococci and staphylococci.

2.—Age 32. Para 1. This case was originally admitted to another institution as a “ failed forceps.” There central episiotomy was performed, forceps re-applied and delivery completed. She was admitted on the 8th day of the puerperium, to this hospital with a history of symptoms for 5 days. On admission the patient was very collapsed and required cardiac stimulants. Laparotomy under local anæsthesia was performed later that day, and the diagnosis of general peritonitis confirmed. Hæmolytic streptococci in pure culture were recovered from the peritoneal fluid. Death followed 8 days after admission.

Group 3.—In which the blood stream became infected.

There were 3 cases. Bacteriological findings in the blood culture :—

Hæmolytic streptococci,	2	(both died)
B. Salmonella,	1	(recovered)

Particulars of the 2 fatal cases :—

1. Age 21. Para 1. (Unmarried.) Normal delivery took place at home, and she was admitted on the 7th day of the puerperium giving a history of abdominal pain and diarrhoea lasting four days. Laparotomy was performed soon after admission, and pus found in the peritoneal cavity. Hæmolytic streptococci in pure culture were recovered from the peritoneal fluid and the blood culture. Death occurred 4 days after admission.

2.—Aged 31. Para 1. This case was delivered by forceps at home. The first symptom occurred on the 9th day of the puerperium, although the patient was not admitted until the 18th day. Hæmolytic streptococci were recovered in pure culture from the uterus and blood culture. Two blood transfusions were given; thrombo-phlebitis in the left leg developed ten days after admission, and death occurred three days later.

Summary of the Bacteriological Findings in the Three Groups.

Hæmolytic streptococci,	22
Hæmolytic streptococci and other organisms,	2
Non-hæmolytic streptococci,	3
Non-hæmolytic streptococci and other organisms, ...	3
B. Coli, staphylococci, etc.,	19
B. Salmonella,	1
No growth,	2
	—
	52

Post-Abortum Infection.

Ten cases admitted with this diagnosis were discharged during the year. The diagnosis was accepted in 6 cases, all of whom recovered. Of the remaining 4 cases, 3 were incomplete abortions, completed by manual removal of the placenta. The other case was one of anæmia.

Bacteriological findings were as follows :—

Hæmolytic streptococci,	3
Hæmolytic streptococci and B. Coli,	1
B. Coli,	2

Dilatation and curettage under general anæsthesia, and blood transfusion were performed for one of the accepted cases.

Whooping Cough.

The diagnosis was confirmed in 140 cases of 168 intimated as whooping cough or whooping cough and an intercurrent disease. To this total must be added 20 cases notified as:—

Bronchitis, broncho pneumonia,	19
Diphtheria,	1
This brings the total to 160.	

Among the 28 cases erroneously diagnosed were found the following conditions:—

Influenza,	1
Coryza,	1
Bronchitis, broncho pneumonia,	22
Pleurisy with effusion,	1
Marasmus,	1
No disease,	2

There were 39 deaths in the series, so that the case mortality was 24% 88% of the deaths occurred in children under 2 years, and broncho pneumonia occurred as a complication in 97% of the fatal cases.

Influenza.

This disease was epidemic at the beginning of 1937, the peak of the "admission wave" occurring in January. The diagnosis was confirmed in 114 cases out of 132 intimated as influenza or influenza and an intercurrent disease. To this total must be added 11 cases notified as:—

Bronchitis, broncho pneumonia,	10
Whooping cough,	1

Thus the total becomes 125.

Among the 18 cases erroneously diagnosed were found the following conditions:—

Erysipelas,	1
Scarlet fever,	2
Auricular fibrillation,	1
Pernicious anæmia,	1 (died)
Toxæmia of pregnancy,	1
Mitral stenosis,	1
Pyelitis,	1
Bronchitis, broncho pneumonia,	8
No disease,	2

There were 28 deaths in the series, so that the case mortality was 22.4%. 90% of the deaths occurred in adults, and broncho pneumonia occurred as a complication in all the fatal cases.

Dysentery.

Of the 45 cases discharged in 1937 the diagnosis was confirmed in 18. To this must be added 5 cases (notified as gastro-enteritis) making the total 23.

Bacteriological examination of the stool was made in all cases and, when necessary, serological examination. This showed that every case was of the bacillary type, and infections with Flexner (unclassified), Flexner W x Z and various combinations of Flexner V, W, X, Y and Z were proved. In only 1 case was B. Sonne III. recovered. The majority of cases were mild, and only 4 were given serum. There were no deaths in the series.

11% of the cases were under 1 year.

35% of the cases were between 1—5 years.

42% of the cases were between 5-14 years.

11% of the cases over 14 years.

Stay in hospital:—

Under 14 days,	72%
14-28 days,	28%

The following conditions were found in the 27 cases not accepted:—

Non-specific enteritis,	12	
Enteric fever (paratyphoid B.)	1	
Food poisoning (B. aertrycke),	1	
Constipation,	1	
Cellulitis scalp and pneumonia,	1	(died)
Peritonitis and pneumonia,	1	(died)
No disease,	10	
<hr/>		
Total,	27	

Enteric Fever.

Of the 8 cases discharged the diagnosis was confirmed in 5. To this must be added one case (notified as dysentery), bringing the total to six confirmed cases. In every instance urine, stool and serological examination bacteriologically proved the cases to be of Paratyphoid B. infection. All the cases recovered.

The patients were not discharged from hospital, other things being equal, until three consecutive negative cultures from the urine and stool were obtained at weekly intervals.

The average stay in hospital was 51 days, the maximum 66, and the minimum 32 days.

Three cases occurred in one family—father, son and daughter being infected.

The following conditions were found in the 3 cases not accepted :—

Simple enteritis,	1
Enteritis (B. Salmonella infection),	1
Tabes mesenterica,	1
<hr/>	
Total,	3

Surgery.

Drainage of empyema,	1
Removal of tonsils and adenoids,	13
Abdominal laparotomy and drainage,	3 (one under local anæsthesia)
Dilatation and curettage,	2
Incision of inguinal abscess,	1
Manual removal of placenta,	3
Blood transfusion,	2
Tracheotomy,	2
<hr/>	

TUBERCULOSIS

Report by Dr J. H. HUNTER,
Chief Tuberculosis Medical Officer,

During the year 1937, the routine work of the Tuberculosis Section proceeded on the same lines as in previous years. Again I desire to acknowledge the very valuable assistance rendered by all members of the staffs of this section of the Public Health Institute and Ashludie Sanatorium, the medical officers and staffs of the various Public Health Services, the health visitors, the Public Assistance Department, the Royal Infirmary and other institutions interested in this work.

The notifications for the year show an increase of 28 over last year. This increase occurs mainly in the non-pulmonary figures, in age group 5-15 especially the abdominal type. There is no change worthy of comment in the rest of the figures.

The demand for accommodation at Ashludie Sanatorium has given rise to increased anxiety during the past year. As I have reported on a previous occasion the accommodation is based on the requirements for pulmonary tuberculosis, no allowance having been made for the non-pulmonary form. Actually non-pulmonary tuberculosis is being treated in ever increasing numbers, thus seriously encroaching on the beds available for the treatment for the pulmonary form. This has resulted, not only in a great shortage of beds for pulmonary cases, but in a long delay in admission. Almost steadily throughout the year the waiting period for males has been two to three months and in many cases for females, two months. For the non pulmonary cases the accommodation is fully taxed and, owing to the necessarily prolonged treatment vacancies occur only at long intervals.

The delay between the diagnosis of the disease and the commencement of treatment has a bearing of the utmost importance on the future progress of the case and may mean that the chances of full recovery are prejudiced, while the length of residence in the Sanatorium is certainly prolonged.

Maryfield Hospital has been extensively used to meet the demand for beds. While no special Sanatorium treatment is carried out there, the patients are under supervision and in better environment. It is not fitting that such infectious cases should mix with patients in the wards of a general hospital.

I greatly appreciate the work done for children in Sidlaw Sanatorium and tender my thanks to the Medical Officer, Matron and Staff for their valuable co-operation. I visited the Sanatorium several times during the year and always found the children happy, well cared for and greatly benefited by their stay.

In the year 1937, 369 cases of tuberculosis were notified—230 cases of pulmonary tuberculosis and 139 cases of non-pulmonary tuberculosis. Of these :—

133 cases were discovered at the Tuberculosis Section.

74 cases were notified by private practitioners.

10 cases were notified from Maryfield Hospital.

130 notifications came from the Royal Infirmary.

5 notifications came from Medical Officers outside the city.

17 came under the notice of the Department through the Registrar after death had taken place.

Pulmonary Tuberculosis.

During the year 230 cases of pulmonary tuberculosis were notified. The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	1	—	1
1—5 years	...	2	3	5
5—15	..	33	33	66
15—25	..	13	34	47
25—45	..	49	36	85
45—65	..	12	8	20
65 years and upwards	...	3	3	6
		—	—	—
	...	113	117	230

The following are the particulars as regards housing:—

No. of Rooms.	No. of Cases.	Total No. of Inmates.	No. of Inmates per Room
1	27	98	3.62
2	87	409	2.35
3	60	357	1.98
4 and upwards	28	184	1.64

In 28 cases home conditions were not procured.

Non-Pulmonary Tuberculosis.

During the year 139 cases of non-pulmonary tuberculosis were notified. The age and sex of these were as follows:—

Age.	Males.	Females.	Total.
Under 1 year	—	1	1
1-5 years	12	10	22
5-15 „	33	26	59
15-25 „	10	16	26
25-45 „	12	14	26
45-65 „	1	1	2
65 years and upwards	2	1	3
	—	—	—
	70	69	139

The sites of the disease were as follows:—

	Under 1 year.		1-5 years.		5-15 years.		15-25 years.		25-45 years.		45-65 years. & upwards.		65 years Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Meninges	0	1	3	2	3	2	0	1	0	1	0	0	0	0
Abdomen	0	0	4	3	19	10	2	7	3	4	0	1	0	0
Glands	0	0	2	2	6	10	2	4	0	3	0	0	0	1
Bones and Joints	0	0	1	3	4	3	2	3	0	4	0	0	2	0
Spine	0	0	1	0	0	0	1	0	4	0	0	0	0	0
Other Forms	0	0	1	0	1	1	3	1	5	2	1	0	0	0
Totals	0	1	12	10	33	26	10	16	12	14	1	1	2	1

The following are the particulars as regards the housing of the non-pulmonary cases:—

No. of Rooms.	No. of Cases	Total No. of Inmates.	No. of Inmates per Room.
1	11	41	3.72
2	50	248	2.48
3	26	131	1.67
4 and upwards	19	128	1.68

In 33 cases home conditions were not procured.

Tuberculosis Clinic.

During the year 482 cases were enrolled as compared with 434 in the year 1936. Of these 98 were found to be suffering from distinct phthisis, (49 males and 49 females) ; 58 were found not to have the disease ; in 294 cases the signs were somewhat indefinite but these cases were regarded as the "pre-tuberculosis stage" ; and 32 were found to be suffering from other forms of tuberculosis.

There were 251 contacts examined ; 1 was found to be suffering from pulmonary tuberculosis ; 1 was found to be suffering from other forms of tuberculosis ; 103 were suspicious and are being kept under observation, and the remaining 146 were found to be negative.

Of the 98 cases of definite phthisis, 37 were previously notified and 61 were notified from the clinic for the first time.

The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	—	—	—
1- 5 years	..	1	1	2
5-15	..	15	8	23
15-25	..	5	20	25
25-45	..	22	19	41
45-65	..	5	1	6
65 years and upward		1	—	1
		—	—	—
		49	49	98

The attendances at the tuberculosis clinic were as follows :—

			Insured.	Non-Insured.	Total.
January	...	...	444	257	701
February	...	...	451	326	777
March	...	...	564	372	936
April	...	...	543	254	797
May	...	...	481	249	730
June	...	...	547	232	779
July	...	...	348	216	564
August	...	...	468	227	695
September	...	...	556	244	800
October	..	..	473	210	683
November	..	..	577	252	829
December			486	177	663
			—	—	—
			5938	3016	8954

Artificial Sunlight.

During 1937, 192 patients attended the artificial sunlight clinic. Of these, 97 were males and 95 were females.

	Males.	Females.	Total.
No of Attendances	4,571	3,476	8,047
No of Sessions—296.			

Laboratory Work.

During the year, 419 specimens of sputum were examined, with the following results :—

	Positive.	Negative.
126 for general practitioners ..	23	103
293 for clinic patients	54	239

X-Ray Department.

During 1937, 488 radiograms and 647 screen examinations were carried out.

Of the 488 radiograms :—

434 were for the Tuberculosis Section.

6 were for the V.D. Section.

46 were for Maryfield Hospital.

2 were for King's Cross Hospital.

488		
Chest	Other Parts	Total
471	17	488

Artificial Pneumothorax

During the year there were 177 attendances at the Artificial Pneumothorax Clinic. Of these 117 were males and 60 were females.

Sidlaw Sanatorium.

During the year there were altogether 41 cases from the City recommended for treatment in this Institution. Of these 20 were males and 21 were females. There were 43 cases discharged (21 males and 22 females). Average stay in the Institution—197 days.

The following table shows the results of treatment in these cases :—

Improved	No Improvement
28	15

J. H. HUNTER, M.B., D.P.H.
Chief Tuberculosis Officer.

ASHLUDIE SANATORIUM.

Report by Dr H. CAMPBELL

During the year 180 patients were admitted and 185 discharged, this last figure including 27 who died.

Admissions—	Male	Female	Children under 12	Total
Tuberculosis of Lungs and Pleura	71	58	2	131
Non-pulmonary tuberculosis, ...	14	13	1	28
Non-tuberculous,	8	11	2	21
Discharges,	80	72	6	158
Deaths,	12	15	—	27
Number of beds occupied on 31st December, 1937, ...			118	
Highest daily number of patients,			130	
Lowest daily number of patients,			116	
Average daily number of patients,			123	
Average residence of those discharged,			256 days	
Average residence of those who died,			191 days	

Age and Sex Distribution of Admissions

Age	Pulmonary		Glandular		Bone and Joint		Other Forms		Non-Tuber- culous	Total
	M.	F.	M.	F.	M.	F.	M.	F.		
0—5,	1	—	—	—	—	—	—	—	1	2
5—15,	6	5	5	2	2	3	—	—	8	31
15—25,	23	30	1	1	2	4	1	—	2	64
25—35,	13	12	—	—	2	1	1	—	7	36
35—45,	26	9	—	—	1	2	—	—	3	41
45—60,	3	2	—	—	—	—	—	—	—	5
Over 60,	1	—	—	—	—	—	—	—	—	1

Condition on Discharge.

	Male	Female	Children
Quiescent,	4	4	2
Much improved,	35	36	2
Improved,	18	7	—
Unimproved,	6	5	—
Worse,	10	10	—
Died,	11	15	—
Non-tuberculous,	8	10	2
	92	87	6

In one case of the non-tuberculous admissions death resulted, the cause being a pneumonitis.

Admissions — Pulmonary.

Patients suffering from tuberculosis of the lungs and pleura form the predominant admissions, and again it is to be noted that the incidence is greatest in the young adult, particularly the young female adult. Success of treatment depends on early recognition and prompt treatment of the disease, but a large number of cases on admission are found to be suffering from the disease at a stage when sanatorium treatment is unlikely to be of any value. Many of such cases give histories of illnesses commencing months previous, a time when the condition would have probably responded favourably to sanatorium treatment, but have failed to present themselves for medical examination.

Of 131 admissions, collapse therapy, tuberculin, gold intravenously or a combination of some of these methods were adopted in 33 instances. 58 cases required no active treatment while 40 cases were unsuitable for any form of treatment owing to the extent and nature of the disease. 13 cases of pleurisy with effusion were admitted.

Non-Pulmonary.

28 cases of non-pulmonary disease were admitted. This figure includes 3 cases of spinal caries and 7 cases of tuberculosis of the knee-joint. At the end of the year 8 cases of spinal tuberculosis and 7 cases of knee-joint disease were still under treatment in the institution.

During the year the female surgical ward was unable to accommodate all the female surgical admissions. Consequently some of the ambulant cases, still unfit for discharge, were transferred to pulmonary wards. This measure was necessary, but is not a satisfactory arrangement.

Non--Tuberculous.

21 cases were found to be non-tuberculous after investigation. These were discharged after a diagnosis had been established, except in 1 case where death resulted. Included in this group there was one case each of the following, bronchial carcinoma, syphilitic

pulmonary fibrosis, rheumatic spondylitis, idiopathic spontaneous pneumothorax, colitis, and in 3 cases no disease was found.

Deaths.

There were 27 deaths during the year. The shortest residence prior to death was 2 days, this patient dying of a fatal hæmoptysis on the day following admission. The following were the causes of death :—

Pulmonary tuberculosis,	22 cases
Pulmonary tuberculosis and meningitis,	1 case
Abdominal tuberculosis,	1 „
Tuberculosis of the spine,	1 „
Tuberculosis of the spine and uraemia,	1 „
Pneumonitis (autopsy),	1 „

Treatment.

Collapse therapy, the method of choice in attempting to arrest and control the disease, was employed in suitable cases. Artificial pneumothorax was attempted in 27 cases, but in 10 instances no space was found. This treatment in 2 of the successful cases had to be abandoned, leaving 15 cases still under treatment, 6 being males and 9 females. In one case artificial pneumothorax was employed for diagnosis, and in another for bronchiectasis as a preliminary measure to lobectomy. In 1 case of bilateral disease, artificial pneumothorax was supplemented by gold given intravenously with a good result. Phrenic evulsion was adopted in 22 cases, either in combination with artificial pneumothorax or as an independent measure. Here the results were highly satisfactory.

Courses of tuberculin were given in 17 cases, and gold intravenously in 6 cases.

Three cases were treated by oleothorax.

Non-Pulmonary.

Conservative treatment was adopted in cases of bone and joint disease except in one case of a tuberculous knee-joint where amputation was carried out. For the orthopædic cases 70 various plasters were applied during the year.

Operating Theatre.

464 refills were given, with and without local anæsthesia. Intravenous pyelography was carried out in 4 instances, and retrograde pyelography in 2 cases. 1 lipiodal examination, for diagnosis, was carried out via the nasal route. 7 major operations were performed under general anæsthesia.

The dentist paid one monthly visit. A large number of patients required extractions, and these were carried out under local anæsthesia mainly.

X-Rays.

1,652 screen examinations were made and 573 films taken.

Mortuary.

There are no facilities for the carrying out of post-mortem examinations, and these examinations have to be performed under difficulties in a small room used as the mortuary.

Training of Nurses.

Three nurses gained the certificate of the Tuberculosis Association, and three successfully completed the first part of the course.

Recreation.

The new tennis court was completed and opened, and is greatly appreciated by the staff.

DUNDEE MENTAL HOSPITAL.

REPORT by Dr A. ALLAN BELL,
Medical Superintendent.

I have the honour to submit the Annual Report of the Dundee District Mental Hospital, Westgreen, for the year ending 15th May, 1938.

Before submitting this, my first Report, I should like to take the opportunity of expressing my sincere thanks for the honour conferred upon me by the Corporation in appointing me to the position of Medical Superintendent of this large Institution in succession to Dr Mackenzie, who retired on 15th June, 1937, after having held the appointment for 34 years. His death came as a great shock to everyone, and it was much regretted that he was not spared to enjoy his retirement. It was interesting to learn that this is the third occasion on which a Superintendent has been appointed, and that Dr Mackenzie's predecessor, Dr Rorie, also held his position for a similar long number of years, his tenure of office extending back to the time when the Mental Hospital was situated within the City itself. I was greatly interested to know that the present Hospital, situated so delightfully in its commanding position midst its beautiful grounds was originally built as a Royal or Private Mental Hospital, and I was much impressed by its solid construction, the good state of preservation of its fabric, its large airy day-rooms and dormitories, and its spacious, well-lit corridors. I wish also to record my gratitude for the detailed administrative organisation which had been established by my predecessors and which has rendered me very great assistance in assuming my new duties.

The number of patients on the Hospital registers was, on 15th May, 1937—626 (320 men and 306 women), and on 15th May, 1938—632 (326 men and 306 women).

During the year there were 87 admissions, 44 discharges and 37 deaths. The total number under treatment was 713 (357 males and 356 females), and the average daily number 635.8 (325.2 males and 310.6 females).

The service patients, etc., maintained by the Ministry of Pensions as private patients numbered 20 at the beginning and at the end of the year 19.

There is one voluntary female patient resident.

The rate-aided patients are chargeable as follows :—

	Male	Female	Total
City of Dundee,	317	301	618
County of Angus, ...	3	2	5
Other Districts,	6	3	9
	<hr/>	<hr/>	<hr/>
	326	306	632

Admissions.

The types of mental disorder among the admissions comprised chiefly:—Schizophrenia, 19 cases; paraphrenia, 4 cases; paranoia, 3 cases; manic-depressive psychosis, 23 cases; epilepsy, 2; general paresis, 1; pre-senile psychosis, 1; senile psychosis, 6; acute confusional psychosis, 10; toxic psychosis, 3; post-encephalitic psychosis, 1; and mental defectives, 14.

At the time of admission their bodily health was good in 53 cases; fair but below par in 28 cases; poor in 5 cases; and weak in 1 case.

Discharges.

The cases discharged numbered 44 (22 men and 22 women), of whom 26 were recovered, 17 improved or relieved, and 1 unimproved, the recovery rate being 29.9% of the number admitted, and in addition 19.5% being improved, or in all 49.4% had regained their health more or less completely.

Deaths.

Thirty-seven patients died during the year—(9 men and 28 women)—the death-rate for the year calculated on the average number resident was 5.8.

The deaths were all due to natural causes, which were verified by post-mortem examination in every case in which the relatives granted permission.

Diseases of the heart and circulation were found to be the cause of death in 8 cases; diseases of the brain and nervous system in 5 cases; acute diseases of the lungs in 11 cases; carcinoma, 3 cases; general paralysis of the insane, 2 cases; arteriosclerosis, 2; septicæmia, thyro-toxicosis, cellulitis of leg, acute gastritis, exophthalmic goitre, and perinephric abscess in 1 case each.

Of the patients who died, 2 were from 12 to 20 years of age; 2 from 20 to 30; 4 from 30 to 40; 4 from 40 to 50; 5 from 50 to 60; 12 from 60 to 70; 5 from 70 to 80; and 3 from 80 to 90.

General Administration and Treatment.

Shortage of Staff.—A short time after my appointment considerable administrative difficulty was encountered owing to illness amongst the nursing staff due to outbreaks of diphtheria, scarlet fever and measles, coupled with cases requiring abdominal operation. At one time the day staff was reduced to two-thirds of its average number, and it was found necessary to engage several private nurses to assist us through the crisis. The difficulty was accentuated by the unfortunate illness of the Matron, who was off duty for more than two months. The situation was not helped by the well-known shortage of nurses throughout the whole country, a condition from which mental hospitals appear to be particularly affected in spite of numerous advertisements. It is to be noted that in addition to the shortage of suitable applicants, a large number of nurses who accept appointment do not complete their training, and indeed many of them leave after only a few months' trial. A number of reasons are advanced to explain this state of affairs which is very unsettling for the more permanent members of the staff and is exceedingly upsetting for the patients. As a settled and contented staff is essential for the treatment and welfare of mental patients, certain changes have been introduced throughout the year with this end in view. A completely new monthly dietary, well varied and tastefully served, has been instituted, without issuing weekly rations to individual members, and it is much appreciated by the staff. Recreational opportunities have been introduced and augmented, so that badminton, carpet bowls and darts were enjoyed with much enthusiasm by both nurses and attendants each Wednesday evening throughout the winter to such an extent that the number of requests for late leave on these nights considerably diminished. It is to be regretted that the new kitchen has deprived the staff of a tennis court for

summer recreation, a condition which it is hoped to remedy before next season. However, they are encouraged to play golf and bowls, the bowling green being open to the female nurses on Wednesday evenings if they desire. Putting greens are in the course of preparation, and will soon be available for both staff and patients. Active steps are being taken to obtain the additional nursing staff required to introduce the 48-hour week, which will soon be inaugurated, and should leave ample opportunity for rest and recreation in order to counteract the arduous duties of the wards. This, with the proposed salary increase of 2/- per week, coupled with the increased period of sick pay, should go far to assist in building up a contented, efficient and well-conducted staff. Ideal conditions will have been attained when the projected new nurses' home is completed with suitable recreation and reading rooms available. Additional cottages for married attendants would also be a great boon to those who have to stay at a distance from the Institution. Permanent night duty for the male staff has been abolished at their request, and each member now does six months' night duty in rotation, while a number of minor restrictions as to dress and sleeping hours have been removed.

In addition to the changes in their conditions of service, every opportunity is taken at lectures and in conversation to impress upon the nursing staff the importance of their calling, and the necessity of developing the highest points of character, so that each one may add his or her quota to the general atmosphere of helpful sympathy which is so much required in mental wards. Into this healing atmosphere of mutual co-operation and help, new patients are easily absorbed, and they in turn help to contribute to it and to communicate it to others during their convalescence. It is constantly indicated how important is the attitude and demeanour of those in daily contact with mental patients, a large number of whom are particularly sensitive to any emotional alteration or any appearance of indifference in those who are in attendance upon them. As there are not enough medical men in each mental hospital to practise psychotherapy (mental healing) in detail, it is emphasised how we must rely upon our nurses to practise it in the form of suggestion and persuasion at every opportunity during their hours of duty. Before being able to do so, a working knowledge of psychology must be acquired in order to understand each patient's mental mechanisms and to appreciate all that each has suffered before his breakdown and to try to realise what he is attempting to express in his symptoms.

Again the necessity of building up the requisite character of a well-trained mental nurse is frequently pointed out, in as much as it is not sufficient for one to know about bones, digestive organs and general diseases, but one must be able to regard all that a mental patient does or says merely as symptoms of his disorder, and must be able to listen to threats and abuse and even to withstand physical violence without being in the least perturbed. On the contrary a nurse must be prepared to redouble her efforts to assist any patient who is hostile. One must realise that one is dealing with the sensitive emotions and the soul of a human being in distress and be constantly prepared in succession to soothe the excited maniac, to calm the restless confusion, to reassure the apprehensive, to supervise and cheer the depressed, to interest the apathetic and demented, to humour the querulous epileptic, and to occupy and divert the hallucinated delusional paranoiac. The emotional strain of this exacting work is very great, especially as it is performed away from all home ties and sources of family life and encouragement, and the value of a well-trained mental nurse cannot be over-estimated.

Mental and Physical Treatment.

A similar psychological approach to the problems of mental disorder has been fostered amongst the Assistant Medical Officers, a great deal of whose time is, in consequence, taken up in writing valuable records of mental examinations and recording detailed histories of all the patients' life-reactions and emotional experiences. This recording, which is done in one of the waiting-rooms, which has been transformed into an office for the purpose, plus their routine ward visits and treatment of general illnesses, leaves them little time for the practice of active psycho-therapeutic measures, far less to undertake any research of a psychological nature. This has been epitomised in the statement that a medical officer should devote two hours every morning to each patient instead of to a ward visit. Nevertheless they have been encouraged to experiment with some of the later measures of treatment of a physical nature as being more easy to apply. Biarsamide is being used with much benefit instead of tryparsamide in cases of neurosyphilis, and will be supplemented with some form of pyrotherapy (temperature-raising treatment) of the nature of malaria, sulphosan or pyrifer, if thought necessary. Prominal is replacing luminal in the treatment of certain cases of epilepsy. Benzedrine is being prescribed in a series of depressed patients with definite beneficial results in some cases, although it had to be stopped in

one or two as they actually became more restless and agitated. Proseptasine and soluseptasine have been administered in cases of acute confusional psychosis of presumably toxic origin with benefit in some cases, and in one young patient contributing to a rapid recovery within a few weeks. The newer forms of the barbiturate sedatives are systematically tried, e.g., soneryl, amytal, etc., and somnifane has proved itself to be a valuable routine sedative without actually pushing it to the stage of prolonged narcosis. The results of the somewhat drastic treatment of schizophrenia by shock produced by large doses of insulin and by epileptic convulsions produced by cardiazol and similar products in other mental hospitals are being carefully scrutinised.

One looks forward to the time when a new and well-equipped hospital unit will provide ample opportunity for research in this, the most difficult of all medical studies, and at the same time will allow of patients being brought to the stage of recovery without ever coming in contact with the more chronic inmates of the Hospital. A separate unit of this nature would be of great value if the Lunacy Laws were ever to be altered to allow us to treat mental patients for a specified period without certification.

A trained technician in the well constructed laboratory would be of great assistance to the Institution in performing serological and biochemical estimations which are a special branch of medicine with the intricacies of which junior medical officers have no opportunities of familiarising themselves.

The general health of the patients has been good except for the limited outbreaks of diphtheria and scarlet fever, and no serious occurrence has taken place amongst them. Indeed few, if any, have given any real outstanding trouble in their nursing, and I have been favourably impressed with the general air of quietness and calmness that prevails, especially on the male side. In order to increase the atmosphere of curative hopefulness for the new admissions, and to diminish the institutional atmosphere as far as possible for the resident population, an effort has been made to brighten the wards with flowers and new furnishings, and to provide the women patients with bright colourful dresses of varied styles and patterns, while the men are having new suits to eliminate the old corduroy trousers which can be used up by the outdoor working parties. An effort is being made to serve their food more daintily, with cups instead of pint mugs for tea, and with trays

for those in bed, while tumblers and salts and peppers are more in evidence. In the near future their whole dietary will be considerably altered as soon as the new equipment for the kitchen is available, especially the fish fryer and the dough-mixer. In order to keep the food at the correct temperature, vacuum boxes are in daily use for the dining-hall, and more will be required for the wards, or alternately the present ones could be used for the wards if it were decided to replace the former hot plate which served the dining-hall.

Recreations.

In addition to enjoying the much appreciated " talkies " and dances, both male and female patients were encouraged to play carpet bowls and darts. The monthly concerts and dances were greatly enjoyed, and thanks must be expressed to all those who contributed to their enjoyment by so generously giving their services. Ordinary bowls are being played by the patients at present, and putting greens will soon be available.

Occupational Therapy.

The Occupational Therapy Department has rendered extremely valuable services in the treatment of the patients, and although producing many beautiful works of art, sight is never lost of its primary function of a curative and treatment centre, where, although a piece of work may not be well done or may even be spoiled, the result is invaluable and cannot be estimated in money if it has assisted in stimulating the interest of a patient who has been dull, apathetic and listless for years, spending her time in the corner of a ward, or if it helps to establish self-confidence and hope in the mind of a depressed melancholic. In order to provide room for new patients to be instructed and to add colour and encouragement to the wards, patients who were already trained were encouraged to do their work in the Hospital wards and dayrooms. Several new industries have been incorporated, e.g., basket chair-making and hand-loom weaving. It is hoped to provide accommodation for woodwork and cement moulding on the male side and to have a much-needed display room adjacent to the female department.

Surgical Treatment.

While considering the treatment of the patients, it must be noted that Dr MacDonald of Maryfield Hospital very kindly arranged to admit any of our mental patients who might require

surgical treatment or supervision. Several patients have benefited from this arrangement, and sincere thanks must be extended to Dr MacDonald and his staff for their help and assistance, which is very greatly appreciated.

New Construction and Repairs.

During the year the Hospital tradesmen were all kept fully occupied with the routine repairs, replacements and new constructions. Another new calorifier for insuring a constant supply of domestic hot water for the Hospital has been installed and is fulfilling its function satisfactorily. The Engineer loses no opportunity of complaining to me about his house at Whitelawston, and constantly reminds me that one of the engines for manufacturing electricity is very old and is liable to break down at any moment. It has been inspected and repaired once or twice by the Electricity Department, to whom thanks are due for their ungrudging help and assistance. Some of the laundry machinery is also in a similar worn condition, and should really be replaced. However, it must be remembered that a plan for a new laundry has been prepared by the City Architect, but a delay has been encountered as it has not yet been decided whether electricity or steam should be used as the motive power. If electricity were decided upon, then the further question as to whether it should be manufactured locally or taken from an outside source of supply would require to be decided. The economiser at the boilers is still out of use, necessitating a loss of steam and reminding one that the whole question of the heating and lighting of the Institution will probably require to be considered in the near future, especially with a view to any further extensions.

An inspection of the fire-fighting apparatus was made by the late Firemaster, who advised several additional hand extinguishers and one additional hydrant to be installed. He caused all the existing couplings to be made uniform with those in the City and tested all the fire hoses, at the same time arranging to have them dried for us whenever we should have a fire drill. He intended to submit a report concerning the fire escapes, some of which are considered to be unsatisfactory if not actually unsafe and dangerous. This subject of fire and water reminds one to report that the large increase in the consumption of water which occurred at the beginning of the year and has continued, has not been satisfactorily accounted for, although the Water Department, after very kindly performing many tests, assures us that there is no leakage of water.

We anticipate the installation of alarm bells from the dormitories to a central point in case of an emergency arising during the night necessitating a nurse requiring assistance quickly. Moreover we hope to have the various parts of the Institution linked up by telephone communication in order to facilitate the administration.

In the Nurses' Home, Yale locks have been gradually fitted to all the doors, thus granting to the staff a high degree of privacy and security for their belongings.

Very satisfactory arrangements have been made and carried out by the Cleansing Department to deal with the Hospital refuse, thus allowing the unsightly and dangerous refuse dump, which was encroaching upon the main building to be discarded, while the nefarious bone house has been converted into a very useful shed for the tradesmen. Owing to the disposal of the pigs at White-lawston Farm, we have required to make arrangements for dealing with kitchen refuse in the nature of brock which is being sold to a local farmer at a satisfactory price. When the metal container for the brock bins is installed it should do much to increase the amenities at the kitchen entrance.

The Superintendent's house has been redecorated, and gas has been introduced, which has allowed the old kitchen range to be removed, while a gas cooker, fires and radiators have been installed, and a complete new system of hot-water supply has been incorporated, using both coal and gas heating. All of these alterations and improvements have contributed to make the house much more modern and comfortable. The lodge occupied by the House Steward has also been redecorated, the roof and windows repaired, and the old range replaced by a modern interior fireplace.

Changes in Staff.

Dr Stephenson, the Senior Assistant Medical Officer left in the early part of this year to take up another appointment after having been four years in the service of the Institution.

Dr Sharpe, who had held the Junior Assistant's post for about a year, was promoted to fill his place, and is worthily justifying the choice by rendering me every possible assistance. Difficulty has been experienced in filling his post, a difficulty also encountered by other mental hospitals and probably due to the

counter-attractions of the armed forces. We have been fortunate, however, in obtaining the services of suitable temporary assistants to tide us over the difficult period.

Miss Benson, the Senior Assistant Matron, also left after 15 months' service to take up another appointment. An effort has been made to obtain the services of an assistant matron possessing both a Certificate in Mental and General Nursing and having experience in nursing in mental wards, but this has not yet been possible in spite of increasing the salary offered.

Another Junior Assistant Matron had to be appointed, and the choice fell upon Miss Hodgkin, who had been 14 years in the service of the Institution, and had on many occasions acted as Relieving Assistant Matron.

Miss Colville, the Kitchen Superintendent, retired on pension at the beginning of the year after having completed 20 years' honourable service in the Institution.

Mr Worsley, the Head Painter, who had been 34 years in the service, also retired on pension at the age of 60 years. The excellent condition of the paintwork throughout the Institution and the tasteful decoration of the wards and dormitories will long testify to the quality of his work.

It was with deep regret that we learned of the death of Mr Young, who had held the position of Upholsterer for seven years. His loss was keenly felt by his fellow-workmen and by all with whom he associated. His post at the moment is filled by a temporary employee, who in all probability will be appointed to the permanent staff.

The decision made during the year that all employees should retire at the age of 65 years caused the resignation of James Campbell, a worker at Whitelawston Farm. He had previously been the Institution Coachman, and had attained the age of 84 years after having completed many years' service extending back to the days of the old Royal Asylum.

During the course of the year Mr Green of the City Architect's Department was appointed to act as Clerk of Works, visiting the Institution once per week. This arrangement has proved very

satisfactory, and has considerably relieved the Superintendent of the routine contact and supervision of the artisan staff, while the Hospital has benefited greatly from his ripe experience and judgment, so much so that it is felt that any further increase in the size of the Hospital would justify the appointment of a whole-time Clerk of Works.

Training of Staff.

Five nurses successfully passed the final examination of the Royal Medico-psychological Association, thus gaining the certificate granted by that body, while nine nurses and two attendants succeeded in passing the preliminary examination. During the winter, courses of instruction have been given by the Superintendent and the Assistant Medical Officers, while lectures and practical demonstrations have been given by the Matron and her assistants. A special room has been equipped for these practical demonstrations, and new equipment has been provided, especially the Bedford doll, which has proved to be extremely useful for teaching purposes. In anticipation of the time when it will be part of the training of all mental nurses to be proficient in some and conversant with all the various branches of occupational therapy, a course of instruction, consisting of 12 demonstrations, was most admirably given by the Occupational Therapy Instructress to those nurses who were preparing for their final examination. This course was attended with much eagerness and enthusiasm, and already it bears fruit in the wards.

Dr Hay of the Home Office Department was kind enough to deliver a course of instruction in air raid precautions to the nursing staff which, although not compulsory, was well attended and much appreciated.

Garden and Grounds.

The garden had a successful yield, and furnished much fruit and many fresh vegetables for the use of the patients and staff. In order to provide more flowers for decoration purposes in the wards, new forcing frames were built, but to provide more tomatoes for salads, an additional house for growing these would require to be constructed. New sheds are also required to replace the present ones for the purpose of storing artificial manures and for the drying of onions, of which we have always a good crop.

The woods around the Institution were cleared of a large number of dead trees, and both the Forester and Gardener assure me that much further clearing and thinning are urgently required as the trees are all considerably overgrown.

DENTIST'S REPORT

I have much pleasure in submitting to you my report of dental treatment carried out by me at Westgreen Mental Hospital for year to 31st December, 1937.

I made 50 visits to the Institution during the year, and carried out the following treatment :—

Extractions—

With local anæsthetic, 275 teeth

With general anæsthetic, 50 teeth

Four general anæsthetics were administered to patients suffering from alveolar abscesses and septic condition of their mouths.

Fillings, 15 teeth

Scaling and Cleaning, 287 cases

Gum Treatment, 19 cases

Silver Nitrate Treatment (to arrest dental caries), 37 teeth treated.

DENTURES.

One patient had an upper and lower denture inserted, and another patient had her upper denture remade. Both cases were carried out at their relatives' expense, and by permission of the Medical Superintendent, who certified them fit patients to wear dentures.

I carried out the usual routine examination of the mouths twice during the year.

The health of the mouths is fair, and oral hygiene continues to be encouraged.

Dental advice was given in 29 cases, and 38 cases were treated for miscellaneous mouth conditions.

I again take this opportunity of thanking the Medical Superintendent and his staff for their help during my visits to the institution.

(Signed) FRANK BERRY WHYTE,

L.D.S., St. Ands.

CHAPLAIN'S REPORT

I have the honour to submit my Report for the year 1937-38.

Nothing of special moment falls to be noted for the past year. The weekly service in church on Sunday afternoon has been held regularly, with only a very rare intermission on account of the weather. I have the impression that the average numbers attending show an increase. The demeanour of the patients has been wonderfully good. I am much indebted to Mr Chalmers and Mr Adams for their help with the musical part of the service, which always seems to appeal strongly to those attending.

The weekly visits to the wards have been continued as usual, with short services for those who cannot attend church.

I have to acknowledge the ready help and unfailing courtesy I have met with from all the staff.

(Signed) J. MACLEAN, Chaplain.

FARM MANAGER'S REPORT

The Dairy Herd.

The herd at Gourdie has had quite a successful year. As the quarterly returns issued by the City Chamberlain's Department show, the number of cows in milk has increased from 67 at 15th May, 1937, to 93 at 15th May, 1938. The milk production has increased accordingly from 5,572 gallons for month ending 15th June, 1937, to 7,325 gallons for month ending 15th May, 1938. It is intended to maintain this increased production during the coming year. The animals in the herd were subjected to the tuberculin test in August, 1937, and all passed. The cows were milk recorded during the year, and the results for year ending 31st December, 1937, were :—

72 cows and heifers recorded. Average yield 919.8 gallons at 3.63% butter fat in 40 4/7 weeks.

48 cows recorded. Average yield 912.5 gallons at 3.59% butter fat in 37 weeks.

24 heifers recorded. Average yield 934.3 gallons at 3.72% butter fat in 47 5/7 weeks.

To maintain a reasonable milk production during the past year it was necessary to purchase additional stock. 25 in calf heifers were purchased in August last and are doing well. At the beginning of the year we had a number of cows infected with

mastitis, and these cows were disposed of, and we are now free from the disease.

We were unfortunate in having a large number of bull calves born during the early part of the year, but towards the end of the year the number of heifer calves born increased. The death-rate amongst the calves has been rather high owing to navel-ill. This disease is not easily got rid of in premises such as we have at Gourdie, as these are built mostly of wood from which it is difficult to get rid of infection. The housing of these young stock could be improved by some alteration to the existing buildings.

I should like to draw attention to the dairy buildings at Gourdie. The boiler house, scullery and milk cooling room are badly ventilated and are inadequate for the satisfactory handling of the milk and the cleaning and sterilising of the utensils. Also the lack of a permanent hot-water supply is very inconvenient.

Sheep.

The black-faced sheep stock on the farm at the beginning of the year was cleared out in the autumn and 60 half-bred gimmers purchased with two Suffolk rams. These new sheep have done very well and gave a fine crop of lambs in the spring. Last year from 73 black-faced ewes we had 75 lambs; this year from 59 ewes we had 91 lambs.

Pigs.

The stock of pigs was entirely disposed of during the year. The incidence of disease amongst them being too great to warrant the carrying on of this part of the farm. Also the buildings for the pigs at Whitelawston are very dilapidated.

Crop.

The general crop of the farm was good, and no home-grown foods were purchased for the stock. The potatoes were practically all used in the Corporation's own institutions or for our seed requirements.

Buildings.

The farm buildings on both steadings are requiring some repair, and those at Gourdie could be altered and added to, to make the attending of the stock easier and more efficiently done.

Implements.

During the past year a new tractor and tractor waggons and other implements were purchased. These have been used to great advantage. There are still some old implements, the seed drills

and carts, which it would be better to have renewed or replaced in order to have the work done efficiently.

Appendix.

Milk supplied to Institution for year,	66,952 galls.
Potatoes and turnips supplied to institutions,	3,263 cwt.s.
Number of stock at 15th May, 1937,	162
Number of stock at 15th May, 1938,	221
Stock over 1 year old—Number sold,	14
Number died,	6
Number purchased,	25
Stock under 1 year old—Number sold,	57
Number died,	24
Number of calves born,	135

JAMES B. BOYD.

Personal.

I wish to take this opportunity of expressing my most sincere gratitude to the Convener and to the members of the Mental Services Committee for the great interest which they have taken in the Institution, and for the kindly manner in which they have considered all the proposals and requests which have been brought forward. I wish to express the sincere thanks of the staff and of the patients for all the improvements they have made and for all the privileges which they have granted, and further I wish to tender my own personal thanks for their constant help and support.

My thanks must also go to the Medical Officer of Health for his never failing assistance, guidance and advice during this my first year of office. His constant encouragement, sympathy and appreciation will never fail to call forth sincere loyalty and gratitude. I must also thank the whole staff of the Public Health Department for their unfailing assistance and the staffs of the other Corporation departments for their constant help and advice.

I must also express my most sincere gratitude and thanks to my medical colleagues in the Institution, to the heads of the various departments therein, and to all the members of the nursing, clerical, artisan and domestic staffs for their loyal and active co-operation in the administration of the Institution, often subjecting their own personal desires and feelings for the greater good of the whole. My most special thanks go to those of the nursing staff who carried on ungrudgingly and without complaint during the difficult period towards the end of last year.

A. ALLAN BELL, M.B., Ch.B., F.R.F.P.&S.G., D.P.M.,
Medical Superintendent.

MARYFIELD HOSPITAL.

REPORT BY Dr J. B. MACDONALD,

Medical Officer

During 1937 Maryfield Hospital continued its work as a municipal general hospital, and a fine spirit of co-operation on the part of the visiting, resident medical, nursing, office and other staffs marked a year of activity and progress.

During the year the first section of the new Nurses' Home was opened by Convener William O'Neill, and the reconstructed hospital unit with its beautiful maternity and children's wards was made ready for occupation.

On January 1st there were in Hospital 91 men, 141 women, 23 boys, and 13 girls; and there were admitted during the year 916 men, 1,196 women, 281 boys and 309 girls, making the total number of patients treated during the year 2,970.

The average daily number of patients was 260, and the average duration of stay of patient 46 days.

The Hospital accommodation is recorded as 328 beds, and the smallest number of patients on any one day was 225 and the largest 323.

An analysis of the discharges for the year shows the following diseases treated with the number of cases of each :—

Bone and Joint,	51
Circulatory,	177
Ductless Glands,	3
Infancy and Malformation	40
Digestive,	240
Genito-Urinary,	127
General,	97
Infectious,	70
Malignant,	89
Nervous,	256

Senile,	117
Pregnancy and Parturition,	141
Respiratory,	463
Mental,	257
Skin,	295
Tuberculosis,	65
Injuries,	67

During the year 476 patients died, most of them being advanced in years, and 38 being under the age of ten.

Operations performed by Mr F. R. Brown, F.R.C.S., Visiting Surgeon, included :—

- 18 of Appendicectomy,
- 4 of Colostomy,
- 5 of Laparotomy,
- 2 of Orchidectomy,
- 9 for Hernia,
- 5 for Phimosis,
- 4 for Hæmorrhoids,
- 4 for Empyema,
- 12 on Abscesses,
- 3 on Glands,
- 6 Amputations,
- 6 Breast Operations,
- 6 Bone Operations,
- 4 on Urinary Tract,
- 2 Cystoscopic Examinations,
- 3 Applications of Plaster.

Mr W. G. Campbell, F.R.C.S., who sometimes acted for Mr Brown, performed the following operations :—

- 3 of Appendicectomy,
- 3 of Laparotomy,
- 3 of Colostomy,
- 1 on Urinary Tract,
- 1 for Hernia,
- 2 for Empyema,
- 3 on Abscesses,
- 2 Bone Operations,
- 1 Amputation.

Mr M. J. Gibson, F.R.C.S., Visiting Aural Surgeon, performed the following operations :—

- 3 of Mastoidectomy,
- 10 of Tonsillectomy by Guillotine,
- 5 of Tonsillectomy by Dissection,
- 1 Paracentesis,
- 2 Incisions of Abscess,
- 2 Incisions of Carbuncle.

There was an increase in the number of gynæcological cases examined and treated. The number of births occurring in the Hospital during the year was 107. The operations performed by Dr R. C. Buist, LL.D., M.D., C.M., M.R.C.P., Visiting Gynæcologist, included :—

- 1 of Hysterectomy,
- 2 of Colporrhaphy,
- 1 of Salpingo-Oöphorectomy,
- 14 Dilatations with Curettage,
- 5 Operations by Diathermy,
- 10 Minor Operations.

Work in the Eye Department is increasing rapidly under the Visiting Ophthalmic Surgeon, Dr Allister MacGillivray, M.D., Ch.B., D.O.M.S., whose operations during the year included the following :—

- 3 for Cataract,
- 4 on Lachrymal Sac,
- 2 for Cyst,
- 1 Cauterisation,
- 2 Eucleations,
- 1 Tarsorrhaphy.

Mr John M. Laburn, L.D.S., Honorary Dental Surgeon, visited the Hospital weekly, and treated 252 patients, extracting 344 teeth with local anæsthetic and 43 in the theatre with general anæsthetic. Gum treatment, scaling, and cleaning were carried out, and special visits were made to urgent cases.

At the Preliminary Examinations of the General Nursing Council for Scotland, junior nurses from Maryfield Hospital secured 26 passes out of 36 subjects, and in the Final Examinations our senior nurses had 48 passes out of 53 subjects.

The following list shows the subjects taught during the year and the number of lectures given in each:—

Anatomy and Physiology,	68
Hygiene,	34
Practical, Part 1,	35
Practical, Part 2,	22
Dietetics,	14
Medical,	35
Surgical,	35
Gynæcology,	20
Bacteriology,	6
Venereal Disease,	6
Bandaging,	6
Cooking (Demonstrations),	6
Cooking (Practical),	6

These lectures were given by doctors on the staff and by the Sister Tutor. Nurses undergoing training received individual tuition from the Sister Tutor, and had the privilege of attending most of the operations in the theatre and certain gynæcological and ante-natal examinations.

The Visiting Surgical and Medical Staff at present includes:—

Mr Brown, Surgery,
 Dr Buist, Gynæcology,
 Professor Charteris, Medicine,
 Dr Emmerson, Anæsthetics,
 Mr Gibson, Ear, Nose and Throat,
 Dr Hunter, Tuberculosis,
 Dr Keay, Special Diseases,
 Dr W. L. Kinnear, Diseases of Children,
 Mr Laburn, Dental Surgery,
 Dr Macdonald, Medicine,
 Dr A. MacGillivray, Eyes,
 Dr Rankine, Medicine.

The appointment of final year medical students as clinical clerks for short periods to act in conjunction with the resident doctors has passed the stage of experiment and continues to be justified by results. In addition to taking histories and examining certain patients in the wards, the clinical clerks have the privilege of accompanying the visiting surgeons and physicians on their

rounds and of doing work which entails a knowledge of surgical and medical technique. Their routine duties include examination of urines, blood counts, hæmoglobin estimations, test meals, sugar estimations, and examinations of exudates, fæces, smears; and they have the opportunity to do urea estimations, typing of blood, fragility tests, sedimentation tests, Van den Bergh reactions, sputum examinations, etc.

We are still without an X-ray plant of our own, and during the year patients have been sent for X-ray to Dr George M. Grant, Dr G. H. Milln, and Dr Hunter.

Histological examinations were made for us at the Pathological Department of Dundee Medical School, and Wassermann, Lange, Gonococcal Fixation and other tests were carried out by Professor Tulloch at the Bacteriological Laboratory.

Post-mortem examinations were made by Professor Cappell.

During the year 259 patients were admitted to the Observation Wards, and of these 35 men and 44 women were sent to the Mental Hospital, 10 died, and the others were discharged recovered to their homes or transferred to medical wards.

As we have only ten beds for men and ten for women, it should be clearly understood that only patients who are primarily in need of psychiatric treatment should be sent to the Observation Wards, and that patients of 65 years or over are not admitted.

J. B. MACDONALD, M.A., M.B., Ch.B., L.R.C.P.

VENEREAL DISEASES.

Report by DR D. M. KEAY,
Special Medical Officer, Venereal Diseases Scheme.

Statistics for the year concluded demonstrate once again that the facilities for the treatment of Venereal Diseases continue to be well utilised.

At the same time, it cannot be presumed that further use could not be made of them although it has to be admitted that the general medical profession in the City appears to be becoming more V.D. conscious. It will be many years, however, before a decrease in the incidence of the diseases can be recorded. The problem is a complex one, and is tied up with conflicting personal desires, habits and anti-social practices, and dependent upon the slow-moving forces of mass education and public opinion. There still is, and probably always will be, a certain section of the public who refuse to accept, acknowledge, and face disagreeable facts and whose temperament inclines them to the belief that if a scandal is denied and buried it will soon cease to exist. Denial will not diminish the incidence of V.D., nor will ignorance and apathy limit the spread of the infections.

There are signs and omens, however, that tend to suggest that success now seems more likely to be achieved than at any previous time in the history of the fight against these diseases. The rapid crumbling of the former rigid taboo against discussion of syphilis and gonorrhœa by the lay public is showing results in terms of men and women, who, recognising the dangers that lurk in the shadow of venereal diseases, are reporting at the clinic for the sole purpose of being reassured or, if necessary, treated at the earliest possible moment. And so it may be said that, as Time marches on, the public is beginning to think for itself in the matter and to understand that V.D. is a disease and not a crime, and that anyone suffering from it is suffering from an illness and no longer regarded as some one who has transgressed the moral law.

Particular reference this year has to be made to the work carried out under the Female Section of the V.D. Scheme. A review of the statistics for this unit of the Department shows a marked increase in the number of attendances and also in the number of new cases, particularly syphilis. It is gratifying to know that even women are now reporting at an earlier stage of the disease than formerly and thereby assisting materially in the easier conduct of the clinic. Female gonorrhœal patients, unlike the male, are unable to assist greatly in treating themselves, apart from taking ordinary measures, embracing diet and cleanliness, consequently necessitating frequent daily and occasionally twice daily visits to have treatment carried out by a nurse. Any cases requiring indoor treatment were, as usual, admitted to Maryfield Hospital, and it is in many ways to the credit of the staff that so few cases actually had to be admitted and that no case of ophthalmia neonatorum that was notified was traceable to a patient who had attended the clinic.

The figures for acquired and congenital syphilis emphasise the wisdom of the routine policy of carrying out a Wassermann reaction in all cases of pregnancy as was advocated in last year's report.

Every effort is made to induce the husband and family of a woman suffering from syphilis to attend for investigation and, if necessary, treatment. Naturally difficulties have been encountered and a good deal of tact and diplomacy has been required in some instances, but once the facts were explained to the parents, the vast majority were only too willing to co-operate with us.

Statistics, to be of value, should be easily understood, and it can be stated briefly that, compared with last year, there has been an increase of 100 per cent. in the number of new female syphilis cases. That figure must not be taken to indicate an increase in the incidence of V.D., but to show that every effort is made to get in touch with members of the public suffering from the disease and to induce them to attend until discharged as cured. The increases, however, have led to the clinic sessions lasting beyond what might be regarded as reasonable limits, and many patients have found it inconvenient for domestic or other reasons to wait too long for treatment.

In the treatment of syphilis a feature which is of paramount importance is continued attendance. The whole scientific concept

of treatment is to treat it continuously for a minimum stipulated period of time. This procedure is essential if any impression is to be made on the status of the disease.

The test of a good clinic is not the number of visits that have been made to that particular clinic but the record of the number of visits per patient. If a high average is shown in the latter regard it may be taken for granted that a satisfactory type of service is being rendered. In order to meet these requirements and to prevent an unduly high lapse rate, no patient should be expected to wait too long for treatment, and in this respect it may be necessary to provide additional sessions.

New Patients.—The total number of new cases who reported for examination during the year under review was 1,307, an increase of 94 as compared with the previous year. A further 924 patients who had not completed their treatment by 1st January, 1937, continued to attend, and these, together with 36 return cases make a grand total of 2,267 patients dealt with during the year.

An analysis of the new patients gives the following figures for the various diseases. The corresponding figures for 1936 are submitted for purposes of comparison.

		Syphilis		Gonorrhœa		Other V.D.		No V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.
1936,		126	104	376	185	101	—	207	114
1937,		153	202	312	177	115	—	217	131
1936—Male,		810		1937—Male,		797			
Female, ...		403		Female, ...		510			
		<hr/>				<hr/>			
		1,213				1,307			

The following is a detailed list of the sources of the new cases reporting :—

	Male	Female
Practitioners,	120	123
Dundee Royal Infirmary,	11	50
Ante-Natal Clinic,	—	85
Child Welfare Centre,	—	22
Other Institutions,	3	20
Ophthalmic Clinic,	13	14
Traced by M.O. Female Clinic, through female patients,	51	—
Traced by M.O. Male Clinic through male patients,	—	8
With S. D. Cards,	69	—
Voluntary,	530	188
	<hr/>	<hr/>
	797	510

The new cases of syphilis were made up as follows :—

	Male	Female
Sero-negative Primary,	13.7%	—
Sero-positive Primary,	31.3%	1.4%
Suffering from secondary syphilis,	7.1%	40.4%
In the tertiary phase of syphilis,	21.5%	24.8%
Cases showing involvement of central nervous system (Tabes Dorsalis and General Paresis included)	4.5%	9.2%
Congenital syphilis,	21.9%	24.2%

The cases of gonorrhœa were made up as follows :—

	Male	Female
Early stage and without complications,	77%	32%
Well established,	23%	68%

Out-Patients.—The total number of out-patient attendances was 46,817, and are compared with the figures for 1936 in the accompanying table :—

		Syphilis		Gonorrhœa		Other V.D.		No V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.
1936,		4,742	5,610	24,724	8,525	1,130	—	541	728
1937,		5,813	6,425	22,953	8,568	1,823	—	477	758
1936—Male,				31,137		1937—Male,		31,066	
				Female, ...	14,863			Female, ...	15,751
					<hr/>				<hr/>
					46,000				46,817

In-Patients.—The number of cases for whom admission to hospital was necessary was 95, made up as follows :—

		Syphilis		Gonorrhœa		Other V.D.	
		M.	F.	M.	F.	M.	F.
1936,		11	9	13	31	1	—
1937,		14	20	17	41	3	—
1936—Male,		25		1937—Male,		34	
		Female, ...	40			Female, ...	61
			<hr/>				<hr/>
			65				95

The following are the numbers of in-patient days :—

1936—Male,	1,712	1937—Male,	2,953
Female, ...	1,248	Female, ...	2,957
	<hr/>		<hr/>
	2,968		5,910

The number of specimens examined by Professor Tulloch and his staff on behalf of the V.D. Scheme is detailed below :—

	1936	1937
Wassermann reactions,	2,010	2,236
Special Wassermann reactions,	243	246
Gonococcus Complements Fixation tests,	1,119	1,145
Smears,	2,151	2,415
Cerebro-Spinal Fluids,	46	52
Dark Ground Examinations,	44	50
	<hr/> 5,613	<hr/> 6,144

Congenital Syphilis.

Syphilis has been described as an ancient enemy, wise in the ways of siege warfare. An enemy that can be overcome only by repeated attacks.

In congenital syphilis, however, we are offered an opportunity of dislodging it from one of its strongest entrenchments.

There are excellent reasons for stating that this type of syphilis is not necessary, and it has been proved to demonstration that measures can be adopted which will greatly minimise if not entirely eradicate this serious reflection on our communal health system. Further, it is also accepted that it is often impossible to tell without a blood test whether a pregnant woman is requiring treatment or not.

Following last year's report, interest has been aroused amongst the physicians connected with the Maternity Services of the Royal Infirmary, and it is hoped that with the introduction of the New Maternity Services Scheme, both in ante-natal clinics and in private practice, the necessary steps will be taken to ensure that no child shall be born with the stigma of congenital syphilis.

When an expectant mother reports at an ante-natal clinic or a private physician, a number of very useful things are done on and for her and her unborn child. A thorough examination is made of her cardio-vascular system, her urine is tested, her lungs examined, and the presentation of the foetus accurately identified, and yet she may be allowed to give birth to a congenitally syphilitic child because a Wassermann reaction is omitted.

During the last four months of the year just completed a routine Wassermann reaction has been the practice at the ante-

natal clinics at the Dundee Royal Infirmary, and we have been assured that the test has aroused no objections from the patients attending. The mere fact of its being a routine measure frees any patient from the stigma of discrimination which would arise if only suspicious cases were so dealt with.

During the above period 536 patients were tested, and of these 97 were found to be suffering from syphilis. This represents 18.1% of the patients attending, a figure that must give rise to food for thought. A total of 82 cases of congenital syphilis reported for the first time compared to 39 cases for last year.

We feel sure that concentrated action will bring fresh hope for the elimination of congenital syphilis. The inarticulate and poignant appeal of the congenital infant should enlist all concerned in a vigorous and persistent effort to secure an effective response.

Treatment.—The results obtained by the early treatment of the syphilitic mother are scarcely paralleled in any other medical condition. In general, the pregnant syphilitic woman can undergo the same type of treatment regime as can the non-pregnant, but the methods of administration of the medications must be above reproach, and the dosage and type of drug gauged according to the condition of the patient.

Last year's report contained the view-points that form the basis of our methods of investigation and treatment.

It may be said, at the cost of repetition that congenital syphilis can be completely or almost completely eradicated by the adoption of the following principles :—

(1) By every pregnant woman having ante-natal supervision and by having as one of the precautionary measures associated with that supervision, a blood test and treatment if the test prove positive.

(2) By every pregnant woman who has acquired syphilis at any period of her life undergoing a course of active anti-specific treatment irrespective of the result of the blood test.

(3) Treatment should be instituted at the earliest possible moment, certainly not later than the fifth month, and must be

continuous—there being no result intervals. The modern remedial agents — arseno-benzols and bismuth must be used. Mercury should never be given unless there is intolerance to one of these.

At this clinic the mercurial preparation of choice is Collosal Mercury Sulphide.

Diagnosis of Congenital Syphilis.—The diagnosis of congenital syphilis depends in the first instance, on the clinical and serological investigations of the parents and a careful appraisal of their histories. Attention must not be confined to the mother but directed also towards the father, for therein may lie the source of infection. Unless this point is borne in mind, considerable difficulty may be encountered in uncovering familial syphilis.

The serological reactions of the mother and her new-born child may among themselves, show a variety of combinations. Both may be positive. The mother may be positive and the child anything from positive to doubtful, and this may become definitely negative soon after birth. Even in the absence of treatment a syphilitic mother may give birth to a serologically negative child and later on that child may develop clinical and serological signs of active syphilis.

Similar variations in the child's blood may occur when the mother has a negative serology. At first sight the picture may appear extremely complicated, but in actual practice it is capable of simple solution.

A positive serological reaction in either mother or child indicates syphilis in both, but a negative serology in either does not indicate an absence of the disease.

In negative cases, the diagnosis must be based on clinical signs and a careful investigation into the previous history of the parents.

In diagnosing the condition clinically it is necessary to remember that the vast majority of patients do not show the classical text-book stigmata of hallowed tradition, such as saddle nose, Hutchinson's teeth, interstitial keratitis, etc.

These phenomena are all due to the presence and activity of the *treponema pallidum* in situ, and cases that show them are really the rare "museum specimens" of syphilis in its inherited form. At the same time, it has to be admitted, that until recently most of the congenital patients who found their way to the clinic did show these stigmata. The reason, however, is not far to seek. It lies in the fact that these signs have come to be regarded as the sole criteria in the diagnosis of the disease clinically.

On this account the quite illogical conclusion has been reached that the majority of congenital syphilitics possess the classical text book facies.

The ability to recognise the true facies of congenital syphilis is a very important aid to diagnosis. It is difficult to describe, but when one comes to be able to appreciate it visually it occupies a place of paramount interest as a diagnostic sign.

Before leaving the subject of diagnosis I would like to direct attention to the later evidences of congenital syphilis in one particular respect.

In considering the later manifestations of the disease, it is necessary to make a distinction between the fore-mentioned stigmata which are caused by the local presence and activities of the spirochætes and those developmental defects which result from what has been described as "syphilitic intoxication."

Aberrant structural developments are not necessarily caused by the syphilitic involvement of the altered tissues. They may be caused indirectly by the involvement of some of the endocrine glands which exert an important influence in regulating growth, e.g., syphilis of the pituitary may have widespread and far-reaching effects which are not in themselves syphilitic. Although these view-points may aid practitioners to arrive at a diagnosis, it frequently happens that careful clinical examination of a suspected child fails to reveal the presence of any sign of inherited syphilis.

In these cases the Wassermann reaction itself is our sole means of uncovering the disease.

General Remarks on Routine Treatment.

A.—Gonorrhœa.

With the introduction of drugs of the Sulphanilamide group a useful weapon has been added to our armamentarium in the treatment of gonorrhœa and chancroid.

Its use as a routine measure has resulted in a diminution in the average duration of treatment and consequently in our total attendances.

Male patients may be divided into two groups:—

- (1) Those who appear almost entirely resistant to the drug; and
- (2) Those who respond favourably.

The percentage of cases in each group has not been accurately determined, but we are inclined to the view, from general observations, that group one is relatively more numerous with Proseptasine, Prontosil Coluble, etc., than with simple Sulphanilamide (Streptocide, Sulphonamide-P. Prontosil Album and its other synonyms).

It would appear also that better results are obtained if the drug is withheld for two-three weeks until the acute stage is passed and when it is given in doses of 1 to 3 tablets (0.5 to 1.5 gm.) three times a day, combined with pot. permang. irrigations.

Early cases of apparent cure are apt to lapse unless this treatment is continued for a fortnight after all symptoms have disappeared.

Chronic cases have been found to respond remarkably well, although they have proved resistant to various methods of anti-septic treatment.

In female gonorrhœa the drug has been found to be equally effective, particularly in those cases which have become well established and where the continued symptoms are due to secondary infecting organisms.

Some workers recommend larger doses and possibly it would be worth while, in cases that do not respond within a few days

to the ordinary doses, to increase the daily dose, for three days, to six grammes a day.

It should be remembered, however, that the likelihood of causing nausea, malaise, and other symptoms of intolerance are greater with the increased dosage.

Some of the preparations are regarded as less likely to cause these toxic reactions, but none are entirely free from such complications, although fortunately they are usually transient and unimportant.

B.—Syphilis.

In the schedule of treatment given to all cases of early syphilis there is a minimum of four courses of arsenical preparations or three beyond that which has ended with sero-negative reactions.

Recent testimony has been borne to the ineffectiveness of the trivalent arsenicals in preventing the onset of parenchymatous neuro-syphilis, and consequently some authorities now recommend that in the treatment of early syphilis, before a patient is allowed to enter his two-year period of supervision he should be given a course of the pentavalent arsenical-Tryparsamide, with the object of saturating the central nervous parenchyma with arsenic in a spirochætidically active form.

Although the idea may be sound theoretically, we have not yet accepted the suggestion as a routine precautionary measure.

End Results of Treatment.

As a result of treatment 387 patients were discharged as completely cured—44 cases of syphilis, 221 of gonorrhœa, and 122 non-specific venereal infections. At the end of the year 1,092 patients were still under treatment; 134 were transferred to other centres; 351 lapsed treatment during the year, equal to 15 per cent. of the total patients attending.

REPORT By PROFESSOR W. J. TULLOCH.

Department of Bacteriology, University of St. Andrews,
Medical School Dundee.

REPORT OF WORK CARRIED OUT IN THE DEPARTMENT
OF BACTERIOLOGY, UNIVERSITY OF ST. ANDREWS,
MEDICAL SCHOOL, DUNDEE, ON BEHALF OF THE
DUNDEE PUBLIC HEALTH AUTHORITIES, FROM 1ST
JANUARY, 1937, TO 31ST DECEMBER, 1937.

The Report is presented in the same fashion as in previous years
so that continuity of arrangement may be maintained.

I. CONTROL OF VENEREAL DISEASES.

(a) Control of Syphilis.

1. Dark Ground Examinations.
2. Wassermann Reactions (Routine).
3. Special Wassermann Reactions.
4. Examinations of cerebro-spinal fluids.

(b) Control of Gonorrhoea.

1. Microscopical examination of discharges and urine.
2. Gonococcus Complement Fixation tests.
3. Supply of vaccine.

II. CONTROL OF OTHER COMMUNICABLE DISEASES.

(a) Diphtheria.

1. Throat swabs from cases and contacts.
2. Virulence tests.

(b) Enteric Fever.

1. Widal Reactions.
2. Blood cultures.
3. Examinations of faeces and urine in cases and convalescents.

(c) Tuberculosis.

(d) Puerperal Sepsis.

III. SPECIAL INVESTIGATIONS.

- (a) Examination of Milk for contamination.
- (b) Examination of Milk for grading.
- (c) Examination of Milk for tuberculosis.
- (d) Examination of Milks for tuberculous under the Tuberculosis Order.
- (e) Food-poisoning.
- (f) Primary meningitis.
- (g) Secondary meningitis.
- (h) Faeces for amoebic dysentery.
- (i) Bacillary Dysentery.
- (j) Examination of crusts for smallpox
- (k) Leptospirosis.
- (l) Blood culture in pyrexia of unknown origin.
- (m) Miscellaneous investigations.

I. CONTROL OF VENEREAL DISEASES.

(a) Control of Syphilis.

1. Microscopical examinations of material to demonstrate the presence of *Treponema Pallidum*.

During 1937, only 52 examinations were made for the presence of *T. Pallidum* in suspected syphilitic sores. This number is much smaller than might be expected, and it is almost certain that there is a large number of cases of this disease whose diagnosis is unnecessarily delayed. The success of preventive and therapeutic measures in this, as in most other communicable diseases, is largely dependent upon early and accurate diagnosis. Delay in diagnosis and treatment means greater danger of spread of the disease, for, with modern methods of treatment, the infectivity of a case of syphilis can be markedly reduced in a very short time.

It is repeated and it cannot be sufficiently emphasised that the Wassermann Test, reliable though it be, cannot give the same unequivocal evidence of syphilitic infection as does the demonstration of *T. Pallidum* in morbid exudates.

Moreover, postponement of treatment means prolonged treatment which is more costly, and the end results of which are much less satisfactory than when active treatment is commenced in the primary stage of the disease.

To call upon the venereal diseases officers to treat late cases of syphilis in which the diagnosis could have been established with certainty during the early phases of the infection is to place upon these officers a burden of work and a responsibility which is quite unnecessary, and defeats, to a large extent, the object of the scheme for the control of Venereal Diseases.

Of the 52 cases examined, all were sent by the venereal diseases officers.

2. Wassermann Reactions.

The improvement in the technique for conducting the Wassermann Reaction, elaborated during 1926-27, continues to form the basis of the routine method of conducting that test in this laboratory, and the experience now obtained shows definitely that these improvements have greatly enhanced its reliability, and it may be said that the test now is as reliable as it is possible to make it.

The number of routine tests carried out was 4,704, of which 2,236 were from the clinic, 647 from other Public Health Institutions, 221 from private practitioners, and 1,600 from institutions other than those connected with the Department of Public Health.

To the total number there must be added 205 tests in which the material examined was cerebro-spinal fluid, and in such cases a reinforced method is always employed, so that the total of Qualitative Wassermann Reactions conducted is 4,909 for 1937.

Included in this figure are 536 tests performed on specimens received from cases attending the ante-natal clinics. Of these 97, i.e., 18 per cent., gave positive reactions.

3. Special (Quantitative) Wassermann Tests.

The special quantitative Wassermann reaction, elaborated in 1925, continued in use during 1937, in order to control the treatment of cases attending the clinics.

It has proved extremely useful in determining the value of treatment, in determining the progress of treatment, and in the continued observation of Wassermann-fast cases. The number of investigations of that nature carried out during the year was 249, 246 from the clinic and 3 from private practitioners, so that the grand total of Wassermann Reactions for the year under consideration was 5,158.

4. Examination of Cerebro-Spinal Fluids.

During 1937, the complete investigation of cerebro-spinal fluids from cases of suspected Neuro-syphilis was continued. In addition to the ordinary Wassermann test and re-inforced Wassermann test, a complete chemical and cytological examination was performed, while the Lange test was employed as routine. Of the 205 investigations, 50 were carried out on material from patients at the clinic, 21 from Maryfield Hospital, 16 from other institutions connected with the Department of Public Health, and 6 from private practitioners, while the remainder of the specimens were sent by consultant physicians.

(b) Control of Gonorrhoea.

One is pleased to note that the interest in this disease is being maintained, for the fact must not be lost sight of that Gonorrhoea may be even a more serious malady than Syphilis.

1. Microscopical examination of discharges for the diagnosis of, and control of treatment in Gonorrhoea.

During 1937, 2,808 microscopical examinations of material for the diagnosis and control of Gonorrhoea were carried out. These were distributed thus :—

	Discharges, including urine after prostatic massage.
From other Public Health Institutions,	152
From the Clinic,	2,415
From Institutions other than those controlled by the Public Health Department,	187
From Private Practitioners,	54

During 1937, 1,598 Complement Fixation Tests have been carried out with a view to the control of treatment or diagnosis of Gonorrhoea. They were distributed thus :—

From the Clinic,	1,145
From other Public Health Institutions,	345
From Private Practitioners,	30
From Institutions other than those controlled by the Public Health Department,	78

The grand total, then, of examinations conducted for the diagnosis and control of Venereal Diseases is as follows :—

Dark Ground Examinations,	52
Wassermann Reactions (Ordinary),	4,704
Special Quantitative Wassermann Reactions, ...	249
Special examinations of Cerebro-spinal fluids, ...	205
Microscopical examination of discharges and Urine,	2,808
Gonococcus Complement Fixation Tests,	1,598
	<hr/>
	9,616
	<hr/>

3. Gonococcal Vaccine.

During 1937, the laboratory has continued to supply male and female clinics with gonococcus vaccine upon a large scale.

During the last year the demand for this has been less than in 1936, and no difficulty has been experienced in satisfying the demands of the venereal diseases officers.

II.—EXAMINATIONS FOR THE CONTROL OF OTHER COMMUNICABLE DISEASES.

(a) Diphtheria.

1. Cultural examination of throat swabs.

Although during 1937 there has been no notably serious outbreak of diphtheria in Dundee, nevertheless a considerable number of cases have occurred, and the total number of routine swabs examined was 906. Of these, 705 were taken from the throat while 201 were of nasal origin.

The percentage of positive throat swabs was 10.5 and of nasal swabs 12.9.

The so-called " intermediate " variety of bacillus diphtheriae continues to be the predominant type of that micro-organism in this district, and is responsible for practically all those cases which are clinically severe.

In connection with the examination of throat swabs, two points call for comment, viz :—(1) The result of the bacteriological examination of the throat is of great importance to the Public Health officer, and its value to the practitioner is no less great when he is dealing with doubtful cases, but when the clinical features

suggest diphtheria, it is unwise to delay the administration of anti-toxin until the result of the bacteriological examination is available. A case which is clinically diphtheria should be treated as diphtheria. If complete investigation negatives the diagnosis no harm is done, but harm is liable to be done to cases of diphtheria when the administration of serum is delayed. (2) In cases which are clinically diphtheria it is well to have the diagnosis verified by bacteriological examination, but it is especially important that treatment be initiated forthwith, and in order that no misunderstanding should arise from this cause, every report on the examination of a throat swab which is negative is sent on a form on which the following is printed in red :—

“ IMPORTANT.—Please note that a negative swab result does not exclude diphtheria. The laboratory findings pre-suppose that the suspicious lesion has been touched with the swab—NOT ALWAYS POSSIBLE IN CERTAIN TYPES OF DIPHTHERIA, ESPECIALLY LARYNGEAL DIPHTHERIA. CLINICALLY SUGGESTIVE cases should be treated without awaiting result of swab. DELAY IS DANGEROUS.

2. Virulence Test.

During 1937, the virulence of strains of bacteria resembling bacillus diphtheriæ, and recovered from the respiratory tract of 76 convalescents or suspected carriers, was determined.

The object of this type of investigation is to ensure on the one hand that convalescents who **appear** to remain infected with the diphtheria bacillus are in fact infected and infective and also to ensure that suspected carriers do harbour the organism.

Care must be exercised in these matters, as harmless bacteria, which are normal inhabitants of the throat but in appearance resemble the diphtheria bacillus, may be mistaken for that micro-organism. The result of such error is that the period of hospital residence of convalescents may be quite unnecessarily prolonged, or that an individual may be wrongly suspected of being a carrier and so a potential danger to his fellows.

Accurate information concerning these so-called “ diphtheroid ” bacilli in such circumstances reduces expenditure in the case of convalescents and is protection from unnecessary inconvenience in that of the suspected carrier.

The details of these 76 are as follows :—

- (i.) Gravis strains—1.
- (ii.) Intermediate strains—33, of which one was avirulent.
- (iii.) Mitis strains—16, of which two were avirulent.
- (iv.) “ Diphtheroids ”—15.
- (v.) Cultures containing Hofmann bacillus—6.
- (vi.) In 5 cases the diphtheroid bacilli had disappeared from the cases before the investigation was made.

The avirulent strains were of interest in that, although in all other respects they qualified as true diphtheria bacilli, they were, at least so far as laboratory investigation was concerned, devoid of disease producing qualities.

(b) Control of Enteric Fever.

Fortunately during the year 1937 very few cases of enteric fever occurred in the city, but the examination of material from suspected cases of this malady involved the investigation of 365 specimens in all.

These examinations, many of which were performed solely for the purpose of excluding a diagnosis of enteric, were as follows :—

1. Widal Reactions.

During 1937, tests were carried out on 68 specimens of blood from suspected cases of enteric fever.

Each specimen is now tested in this laboratory for the presence of antibodies both to the flagellar and somatic antigens of bacillus typhosus, and bacillus para-typhosus beta. Moreover all such specimens are tested in addition for the presence of antibodies to the brucella abortus.

This extension of the work was considered desirable as occasionally the diagnosis of enteric is delayed if a less elaborate test be applied.

The investigation of these 68 specimens, therefore, involved the performance of 320 reactions.

In nine instances a positive result was obtained. Seven were from cases of paratyphoid beta infection, three of which occurred in February and March and four during September.

The remaining two cases were instances of true typhoid infection, one of which was imported.

One is glad to report that no spread either of typhoid or of paratyphoid occurred in the community.

Among the 68 specimens tested, 3 agglutinated the bacillus abortus in such low concentration that the reaction was diagnostic.

In addition, examination of suspected cases of undulant fever by blood culture was performed in two instances with, however, negative findings.

It would seem then that there is a small but an appreciable incidence of undulant fever in our city, the causal agent of which is the bacillus abortus of Bang.

2. Blood Culture.

The most satisfactory of all methods for diagnosing enteric fever is blood culture, as by this means an early and accurate diagnosis can be established. In the past, this method has not found much favour among the practitioners of the City.

The method was, however, employed in 27 suspected cases. Three were positive for bacillus paratyphosus beta and one for true typhoid.

In many instances the procedure is carried out too late in the disease to permit of positive results being obtained.

In this connection it cannot be sufficiently emphasised that **blood culture is the only method whereby an early and accurate diagnosis of enteric can be made, and it should be employed during the first week of the illness.**

The significance of this, from the standpoint of public health, is not only that early diagnosis leads to the necessary precautions being taken to prevent further spread of the infection, but, in this instance, the diagnosis may be made at a period when the infectivity of the case is still minimal.

3. Examination of Fæces, Urines, etc., from Enteric Convalescents, and re-examination of Cases occurring in the past year.

(i.) Fæces.

During 1937, 90 specimens of fæces from convalescents of enteric fever or from possible carriers of the disease were examined, the typhoid bacillus was found in three, while the bacillus paratyphosus beta was present in eight.

(ii.) Urines.

During 1937, 39 specimens of urine from convalescents of enteric fever were made the subject of cultural investigation. One gave a positive finding, the organism present being bacillus typhosus.

Attention should be specially directed to these cases of urinary infection in enteric, as patients with infective urine are always a greater danger to others than are those whose intestinal contents alone are infected. The reason for this is that frequently less care is exercised in the disposal of urine than of fæces.

Indeed, chronic urinary carriers are in a special sense a menace to those around them, and it is important that this be adequately appreciated.

(iii.) Other material examined for enterica infection.

During the course of 1937, post-mortem cultural investigation of spleen pulp was required in 3 instances in order to exclude the possibility that fatal cases of undiagnosed pyrexia were in reality cases of enteric fever.

None proved to be infected with the bacteria in question.

In one instance a specimen of peritoneal fluid was similarly examined as there was a remote possibility that the case was one of enteric. The finding was, however, negative.

(c) Control of Tuberculosis.

321 specimens of sputum were examined from cases in Dundee during 1937, a figure showing no notable change from the previous years. The percentage of positive findings was 9.4%.

In addition to the investigations conducted on behalf of the City Health Authority to assist in the control of tuberculosis, numerous specimens of morbid material submitted from patients in institutions are of such a nature that it is necessary to exclude tuberculosis. During 1937, 320 such specimens have been investigated, comprising :—

Urines,	147
Cerebro-spinal fluids,	60
Pus, including pus from glands,	62
Pleural fluids,	20
Fluids from joints,	16
Miscellaneous,	15
	<hr/>
	320
	<hr/>

(d) Puerperal Sepsis.

During 1937, the investigation of material from puerperal sepsis has been continued. The improvement in technique introduced in 1932 with a view, if possible, further to elucidate the question of the relative importance of different varieties of streptococci, as causal agents of the condition, have been used throughout the year, and the following are the results obtained :—

In all, 222 examinations from 133 patients have been carried out during the year under review, and these comprise :—

(a) Examination of uterine culture,	212
(b) Blood cultures,	10

As puerperal sepsis is, in the main, associated with streptococcal infections, and as the severer forms of the disease appear usually to be caused by streptococcus hæmolyticus, the following figures dealing with the recovery of streptococci from puerperal cases may be of some interest.

In 8 patients both blood culture and full investigation of uterine discharge was carried out, the following results being obtained :—

- (i.) In 2 cases streptococcus hæmolyticus was shown to be present in the discharge but not in the blood.
- (ii.) In 2, anaerobic streptococci were shown to be present in the uterine discharge, but not in the blood.

- (iii.) In 4 instances, streptococcus was recovered neither from the uterine discharge nor from the blood.
- (iv.) In one additional case hæmolytic streptococci were recovered from the blood while the uterine discharges were not submitted for examination.

The results may be summarised thus:—

	Uterine Culture	Blood Culture
Patients,	130	10
Streptococcus hæmolyticus,	26	1
Streptococcus viridans,	5	0
Anaerobic streptococci,	2	0
Pseudohæmolytic streptococci, ...	1	0
Pneumococci,	3	0

During the course of 1937 we were called upon to examine the throats of 21 persons in attendance upon cases of puerperal fever in order to determine whether they were carriers of virulent streptococci.

III.—SPECIAL INVESTIGATIONS.

During 1937 the tests used to examine milk for cleanliness were altered to conform with those required under the Milk (Special Designations) Order (Scotland), 1936.

Before the change was made 46 specimens had been dealt with by the procedures that had hitherto been used, and thereafter a further 122 samples were examined by the new methods.

In all then, 168 specimens of milk were investigated to determine the degree of bacterial contamination and the presence of organisms of fæcal origin.

The results of the examinations of the 46 samples investigated prior to the introduction of the new system are as follows:—

1. Test for presence of B Coli.

B. Coli test postive in .001 c.c. or less—unsatisfactory,	1
B. Coli test postive in .01 c.c., negative in .001 c.c.— doubtful,	2
B. Coli test postive in .1 c.c., negative in .01 c.c.—good, ...	3
B. Coli test postive in 1 c.c., negative in .1 c.c.—very good, ...	7
B. Coli test negative in 1 c.c.—excellent,	33

So far then as the B.Coli test is concerned, 43 of these milks are up to the standard of what used to be designated Grade A milk, while 40 pass the more severe test for certified milk.

2. Total Number of Micro-organisms.

(a) Over 5,000,000 per c.c.,	1
(b) Over 3,000,000 but less than 5,000,000 per c.c.,	0
(c) Over 1,000,000 but less than 3,000,000 per c.c.,	1
(d) Over 700,000 but less than 1,000,000 per c.c.,	4
(e) Over 500,000 but less than 700,000 per c.c.,	0
(f) Over 300,000 but less than 500,000 per c.c.,	4
(g) Over 200,000 but less than 300,000 per c.c.,	4
(h) Over 100,000 but less than 200,000 per c.c.,	2
(i) Over 50,000 but less than 100,000 per c.c.,	3
(j) Over 30,000 but less than 50,000 per c.c.,	7
(k) Over 10,000 but less than 30,000 per c.c.,	3
(l) Over 5,000 but less than 10,000 per c.c.,	7
(m) Less than 5,000 per c.c.,	10

46

(b) Examination of Milk for Grading.

Included in the above were 12 specimens in which the special examinations for grading and certification were carried out. The investigation in such circumstances is conducted according to a standard method advised by the Department of Health for Scotland, these milks being submitted by dairies in Dundee for grading under the Milks (Special Designation) Order, 1928, and Amendment Order (Scotland), 1928. This has now been superseded by the Milks (Special Designation) Order (Scotland), 1936. Of the 12 milks, 10 were remarkably clean, in that bacillus coli could not be demonstrated even in 1 c.c., while a total count of each is as follows:—

Colon Test.	Total Count.
Negative in 1 c.c.	2,000 per c.c.—Feb.
Negative in 1 c.c.	3,500 per c.c.
Negative in 1 c.c.	5,000 per c.c.
Negative in 1 c.c.	5,000 per c.c.
Negative in 1 c.c.	7,200 per c.c.
Negative in 1 c.c.	9,300 per c.c.

Negative in 1 c.c.	150 per c.c.—May
Negative in 1 c.c.	1,300 per c.c.
Negative in 1 c.c.	3,800 per c.c.
Negative in 1 c.c.	5,500 per c.c.
Positive in 1 c.c.	6,000 per c.c.
Positive in 0.1 c.c.	35,000 per c.c.

Of the remaining samples examined after the introduction of the method required by the Milks (Special Designation) Order (Scotland), 1938, there were 122, of which 15 were designated as "Certified," 15 as T.T. Milk," one as "T.T. Pasteurised," two as "Pasteurised," while the remainder, with the exception of two specimens of sterilised milk, were not designated.

Of the 15 certified samples, 10 conformed to the requirements while 5 failed to do so. Of these, 4 were not satisfactory in that bacillus coli could be cultivated from 0.1 c.c., and one gave too high a bacterial count—61,000 per c.c., whereas only 30,000 is permitted.

The details of the examination of these are shown in the following table:—

Certified Milk.

B. Coli in 0.1 c.c.	Total Count.
Absent	300
Absent	400
Absent	900
Absent	1,400
Absent	1,900
Absent	2,000
Absent	2,000
Absent	2,200
Absent	5,000
Absent	10,300
Absent	61,300
Present	930
Present	1,400
Present	3,400
Present	19,700

Of the 15 samples designated "T.T.," 6 were inadequate in that bacillus coli was present in 0.01 c.c. although satisfactory in that the bacterial count was less than 200,000 per c.c. One failed to conform to the requirements both as to content of bacillus coli and as to total count.

The details of the examination of these are shown in the following table:—

T.T. Milk.

B. Coli in .01 c.c.	Total Count.
Absent	2,300
Absent	2,500
Absent	3,000
Absent	6,000
Absent	6,300
Absent	12,700
Absent	13,000
Absent	14,600
Present	30,000
Present	38,000
Present	98,000
Present	113,000
Present	119,000
Present	122,000
Present	244,000

The single sample designated “ T.T. Pasteurised ” failed to conform to the requirements, for although satisfactory in that the total count was 15,000—30,000 being permitted—bacillus coli was present in 0.1 c.c.

Of the two samples designated “ Pasteurised,” neither was of the required degree of cleanliness. One gave a total count of 72,000 and the other of 166,000, the permissible bacterial content being 30,000 per c.c.

The two specimens of sterilised milk were very clean, one giving a count of 100 and the other of 1,000 per c.c.

Concerning the samples of undesignated milk, it is a little difficult to categorise these, but they may be roughly divided into the following classes:—

- (i.) Those which are clean both from the standpoint of colon bacillary content and total count.
- (ii.) Those which are less clean in that the colon bacillary content is low, but the total count somewhat high.
- (iii.) Those in which, although colon bacilli are present, have a low total count.
- (iv.) Those in which bacillus coli is present and is accompanied by a high total count.

In 39 samples of such milk, bacillus coli could not be demonstrated in .01 c.c., while a synopsis of the total bacterial counts is given in the following table.

Total Counts in those specimens of Undesignated Milk in which bacillus coli could not be demonstrated in .01 c.c.—

(a) Less than 5,000	per c.c.	4
(b) 5,000 to 10,000	" "	7
(c) 10,000 to 30,000	" "	7
(d) 30,000 to 50,000	" "	5
(e) 50,000 to 100,000	" "	6
(f) 100,000 to 200,000	" "	4
(g) 200,000 to 300,000	" "	1
(h) 300,000 to 500,000	" "	4
(i) 500,000 to 700,000	" "	0
(j) 700,000 to 1,000,000	" "	0
(k) 1,000,000 to 3,000,000	" "	0
(l) 3,000,000 to 5,000,000	" "	1
(m) More than 5,000,000	" "	0

39

It will be seen that no less than 33 of these 39 samples gave a total count of less than 200,000, and could, therefore, be regarded as very clean.

Total counts in these specimens of Undesignated milk in which bacillus coli was present in 0.01 c.c.—

(a) Less than 5,000	per c.c.	2
(b) 5,000 to 10,000	" "	3
(c) 10,000 to 30,000	" "	7
(d) 30,000 to 50,000	" "	4
(e) 50,000 to 100,000	" "	4
(f) 100,000 to 200,000	" "	7
(g) 200,000 to 300,000	" "	4
(h) 300,000 to 500,000	" "	3
(i) 500,000 to 700,000	" "	1
(j) 700,000 to 1,000,000	" "	4
(k) 1,000,000 to 3,000,000	" "	6
(l) 3,000,000 to 5,000,000	" "	2
(m) More than 5,000,000	" "	3

50

There are then 27 of these 50 specimens in which the total count is less than 200,000, and these may be regarded as clean.

Of the three specimens in which the count exceeded 5,000,000 per c.c., one gave a count of at least 10,000,000, one of about 7,000,000 and one of 5,000,000 per c.c., so that all three were really very dirty.

(c) Examination of Milk for the Presence of Tubercle Bacilli.

During 1937, 6 samples only were tested for the presence of tubercle bacilli by the inoculation method. Of these one proved to be tuberculous. The reason for the reduced number of samples is that during this year the veterinary service of the county was being reorganised and control of bovine tuberculosis was dealt with from another viewpoint.

(d) Examination of Milks for Tuberculosis under Tuberculosis Order.

During 1937, 19 specimens of milk were investigated for the presence of tubercle bacilli under the Tuberculosis Order. Of these one was positive.

(e) Food Poisoning.

During the year under consideration no extensive outbreaks of food poisoning occurred in the City. There were, however, 43 suspected sporadic cases.

In 2 instances the causal agent was the Aertrycke bacillus, in 7 one of the less important salmonella bacilli was present, three proved to be really cases of paratyphoid beta, while in three patients the fæces contained very large numbers of staphylococci. It is possible that these three were actually cases of staphylococcal food poisoning.

As so often happens, several of these suspected cases of food poisoning proved to be bacillary dysentery.

The investigation of the 43 suspected cases involved the examination of 49 specimens of morbid material and two samples of food.

(f) Primary Meningitis.

During 1937, 21 cases of such nature that they might have been primary meningitis occurred in Dundee, and all were made the subject of extensive bacteriological examination. Of these, 7 proved to be cases of true cerebro-spinal (meningococcal) meningitis, each of which was examined several times during the progress of the illness. The total number of tests made in this condition was 31.

In addition to these suspected cases of meningococcal meningitis, there were 55 in which primary meningitis, other than that due to infection with the meningococcus, was suspected.

Of these, 9 proved to be due to the pneumococcus and one to infection with the so-called influenza bacillus.

There were also 4 cases in which the infecting micro-organism was streptococcus hæmolyticus, and one in which streptococcus viridans was the causal agent. These five cases proved on further enquiry to be cases of secondary meningitis, and there was, in addition, a single case of brain abscess.

There were, therefore, 39 cases in which, although primary meningitis was suspected upon clinical grounds, that diagnosis was not established when complete investigation was undertaken.

These cases of "meningismus" where the clinical finding suggest, but examination fails to reveal infection are interesting in that the condition is often associated with pneumococcal invasion in other parts of the body.

In 2 of these 39 cases, large numbers of inflammatory cells were present in the cerebro-spinal fluid, and clinically the cases recalled a condition that was cited in the report for the year 1930.

(g) Secondary Meningitis.

During 1937, we were not called upon specifically to investigate any cases of meningitis occurring as a sequel to injury, or arising as a complication in other conditions.

Actually six such cases were encountered, and these have been dealt with in the previous paragraph.

The total number of examinations performed in the investigation of suspected meningitis other than meningococcal meningitis was 63.

(h) Amœbic Dysentery.

Five cases of suspected amœbic dysentery occurred in the City during 1937; complete investigation negated this diagnosis in all.

(i) Bacillary Dysentery.

During 1937, as in previous years, cases of bacillary dysentery due to the mannite fermenting dysentery bacilli, have occurred in Dundee, and, as before, many of these have been regarded as "food poisoning" until laboratory investigation revealed the true character of the illness.

In no instance, I am glad to say, was there an institutional outbreak, but a number of family outbreaks occurred.

The cases were, therefore, sporadic, so that the source or vehicle of infection was difficult to determine.

In all, 221 examinations were carried out in 163 suspected cases of bacillary dysentery during 1937. Of these, 213 were examinations of fæces and 8 were agglutination tests with the serum of convalescents or contacts.

These cases may be categorised as follows:—

- (i.) In six instances the cases occurred as small familial outbreaks.
 - (a) Two in one family, the infecting bacillus being possessed of VW antigens.
 - (b) Three in one family, the causal agent being an "aberrant" Flexner bacillus.
 - (c) Two in one family in which the causal bacillus was possessed of WY antigens.
 - (d) Two in one family, the infecting bacillus being possessed of XYZ antigens.
 - (e) Two in one family in which the presence of pus, blood and mucus in the dejecta left no doubt as to the cases being bacillary dysentery, but the causal organism was not recovered.
 - (f) Two cases in one family in which the micro-organism responsible for the illness was the so-called "Newcastle" bacillus.

(ii.) Sporadic Cases.

In all there were 164 suspected sporadic cases of this disease during 1937.

1. From 21 of these there was isolated an organism belonging to the Flexner group.

The antigenic constituents of these were as follows :—

(a)	Antigenic type	XYZ	.....	2 cases
(b)	do.	XY	.....	2 cases
(c)	do.	VW	.....	1 case
(d)	do.	V	.....	1 case
(e)	do.	W	.....	1 case
(f)	do.	X	.....	1 case
(g)	do.	Z	.....	1 case
(h)	do.	" Aberrant Flexner "		13 cases

2. From one there was recovered the Sonne III. bacillus.

3. From five was isolated the Morgan I. bacillus which, although not strictly a member of the group of dysentery bacilli, is responsible for a condition which clinically resembles that malady.

4. In addition, there were 21 cases in which the intestinal discharge contained pus, blood and mucus and, although we failed to isolate dysentery bacilli from them, they may be regarded as cases of true bacillary dysentery.

Often in dysentery, the infection is transient and moreover the preservation of the causal agent in the discharges, once they leave the body, is uncertain.

For this reason it often happens, especially in sporadic cases when diagnosis is delayed, that although all the signs of the disease are manifest the causal agent is not recovered from the morbid material.

There were, therefore, 116 cases in which the laboratory findings did not bear out the clinical suspicions.

The disease bacillary dysentery is actually of greater importance as a public health problem at the present time than is enteric fever, and the regularity with which family outbreaks and sporadic cases occur each year indicates the need for continued effort being made to reduce its incidence.

The evidence available points to personal cleanliness, careful handling of foodstuffs and adequate nutrition of the people as important factors in reducing the occurrence of bacillary dysentery.

(j) Variola Vaccinia Flocculation Reaction.

During 1937, no cases of smallpox occurred in the City, and we were not called upon to perform this reaction during that year.

It may be noted, however, that the help of the laboratory has been requested by other public health authorities to assist in the investigation of doubtful cases of smallpox. Fortunately only negative findings were obtained in cases from this part of the country. Subsequent events proved the cases to have been Varicella.

(k) Leptospirosis.

There were no cases of suspected leptospirosis during 1937.

In connection with this malady the following points are worthy of note :—

In the first place an outbreak of leptospirosis occurred recently among fish workers in Aberdeen, and as we know from the survey of rats made during 1925 that the rats of Dundee are as heavily infested with leptospira as are those of Aberdeen, it is possible, should conditions be fulfilled, that this disease might occur in Dundee.

The conditions in which propagation of infection from rat to man is liable to occur are those associated with the handling in moist surroundings of certain foodstuffs which attract rats.

Secondly, Schuffner has shown that in Holland a large percentage of cases of the disease do not become jaundiced. It is not improbable then that some cases of " pyrexia of unknown origin " are really of this nature.

Thirdly, it has recently been established that as the disease progresses the urine of the patients acquires the property of killing the causal organisms; it follows from this that a negative finding on examining the urine is of no significance.

Fourthly, Schuffner has elaborated a test, using a small quantity of the patient's blood, whereby an accurate diagnosis can be easily established at any time after the first few days of the illness.

During 1937, we have continued to collaborate with Dr John Smith, of the Public Health Department of the City of Aberdeen, with a view to elaborating a simplified method for conducting the Schuffner test. This modified Schuffner test has proved extremely valuable and is easy to perform.

(1) Blood Culture in Pyrexia of Unknown Origin.

During 1937 the number of blood cultures that have been made to assist in the diagnosis of pyrexia of unknown origin was 42. The value of the procedure both from the standpoint of diagnosis and of prognosis is considerable.

Of these, 30 failed to show the presence of bacteria in the circulation, while the organisms present in those which proved positive were as follows :—

(i.)	<i>Streptococcus hæmolyticus</i>,	.....	1
(ii.)	<i>Streptococcus viridans</i>,	.....	2
(iii.)	<i>Staphylococci</i>,	.....	3
(iv.)	<i>Pneumococci</i>,	.....	3
(v.)	<i>Bacillus fæcalis alkaligenes</i>,	.....	2
(vi.)	<i>Salmonella bacillus</i>,	.....	1
<hr/>			
			12
<hr/>			

The case of the *Salmonella* infection has already been dealt with under heading "e"—bacillary food poisoning.

It is also worthy of note that in several instances these blood cultures were made for the specific purpose of excluding infection with the bacillus of undulant fever—*bacillus abortus*.

(m) Miscellaneous Investigations.

In addition to the work categorised under the above headings, a number of miscellaneous tests, etc., have been carried out on behalf of the Public Health Authority of the City of Dundee.

Among these miscellaneous investigations were the following :—

(i.) Vincent's Angina.

Material from 7 cases of suspected Vincent's Angina was investigated during the year under consideration.

(ii.) Investigations for King's Cross Hospital.

1.	Complete examination of pleural pus,	5
----	--------------------------------------	-------	---

2. Agglutination in cases of suspected infection with organisms of doubtful pathogenicity,	8
3. Weil-Felix reaction in cases of suspected Typhus fever, ...	1
4. Complete examination of pus,	3
5. Examination of throat swab for "streptococcus scarlatinæ,"	1

(iii.) Investigations for Maryfield Hospital.

1. Preparation of vaccine,	8
2. Complete examination of pus,	3
3. Complete examination of urine,	2
4. Complete examination of cerebro-spinal fluid,	10
5. Examination of pus from empyema,	2
6. Blood culture in cases of suspected undulant fever,	1
7. Supply of reagent for producing "protein shock,"	2

(iv.) Investigations for Westgreen Mental Hospital.

1. Preparation of vaccine,	1
----------------------------------	---

(v.) Investigations for Ashludie Sanatorium.

1. Complete examination of sputum,	1
2. Complete examination of fluid from knee,	1
3. Complete examination of urine,	1
4. Complete examination of pleural fluid,	1

(vi.) Investigations for Public Health Institute.

1. Complete examination of urine,	5
2. Complete examination of pus,	1

(vii.) Investigations for the Sanitary Department.

1. Examination of cat for the parasite of favus,	1
2. Examination of milk for presence of blood,	1
3. Examination of swabs for "streptococcus scarlatinæ," ...	2
4. Examination of specimens of blood from cases of suspected food poisoning,	2

(viii.) Examination of throat swab from an outbreak of tonsillitis in an institution,	34
---	----

(ix.) Examinations on behalf of the Veterinary Officer of the City.

In addition to examination of milk under the Tuberculosis Order (vide "d" Special Investigations) the following additional examinations were carried out on behalf of the veterinary officer of the City during 1937 :—

1. Examination of bovine glands for tubercle,	2
2. Examination of milk for mastitis,	2
3. Examination of bovine pus for streptococcus hæmolyticus,	1
4. Examination of bulked milk for cleanliness,	9

During 1937, the collection of serum from patients convalescent from measles was continued in order that a supply of this might be available for the treatment of grave cases of that illness in weakly children.

The separation of the serum and the testing of it to ensure that it is both sterile and suitable for the purpose in view, constituted an additional service rendered by the laboratory during 1937.

In addition to these examinations performed on behalf of patients under treatment in hospitals or clinics administered by the Public Health Authority of the City, a number of other investigations dealing with communicable disease were also carried out.

These comprise :—

1. Two cases of suspected malaria.
2. Two cases of infestation with *Tænia Echinococcus*.
3. One case of suspected infestation with *Trichocephalus Dispar*.
4. One case of anterior poliomyelitis.
5. In several instances we were asked to determine the serological type of the pneumococcus responsible for pleuritis, meningitis, pneumonia, etc.

The work of the laboratory on behalf of the Public Health Authority of the City of Dundee during 1937 has been very similar to that in previous years, excepting 1931 and 1932 when, owing to the survey of market milk, the volume of work done was in excess of average years, and in 1935 when a survey of milk on behalf of the Milk Marketing Board also increased the number above the average.

It has been a very pleasant duty indeed to conduct the work herein reported, and the success which has attended it is due in no small measure to the ready, willing and helpful co-operation of the staff of the Public Health Department and the hospitals and clinics attached thereto.

This co-operation does much to lighten the work, makes it more interesting, increases efficiency, and offers educational facilities to the department and its ancillary clinics.

MATERNITY SERVICES.

Reports by DR. MARGARET SCOTT-DICKSON,
Maternity Services Medical Officer.

DR. MARGARET FAIRLIE.

DR. H. GORDON CAMPBELL.

There have been no material alterations in the general working of the Scheme during 1937.

The only fact calling for comment is the marked increase in the amount of material assistance given to the patients in the form of free dinners supplied to expectant and nursing mothers. In 1936, 3,111 dinners were given to 32 mothers, while in 1937, 3,762 were provided for 51 mothers. The increased willingness of the patients to accept the offer of free dinners has been noted in all districts where they are available, and the improved condition of the infants due to the prolongation of the period of breast feeding has already been apparent in many cases.

The difficulty has always been to find restaurants in the various districts which are willing to accept service under the Scheme, as many proprietors find it interferes to some extent with their ordinary requirements, and in many cases the distance from the mother's home to a restaurant makes it impossible for her to go daily for her dinner. This is at present most marked in Lochee district, where there are no restaurants able or willing to supply the plain type of meal required, and it is to be hoped that this difficulty may be overcome in time, as there is an increasing demand for dinners in that area.

Another noteworthy increase is in the amount of Ostermilk sold at cost price at the clinics, 1,013 lbs. as against 441 lbs. in 1936.

I wish to thank all the members of the staff for their willing service and valuable co-operation in all branches of the work, and also to express the gratitude of the staff as a whole, to the members of the Dundee Voluntary Health Workers' Association, for their assistance at the clinic, and for their provision of clothing for the children; and also their interest in the Day Nurseries, and welcome gifts of clothing and Christmas treats to the children in the Nurseries.

The detailed report of the work follows, including reports from the Medical Officers in charge of the Special Clinics.

Infantile Mortality.

- (a) Number of deaths 272
 (b) Rate per 1,000 births 87
 (c) For classification of deaths in age groups and causes of death—See Table XII., in the statistical section of the report.

272 deaths of children under one year were noted by the Maternity Services Scheme, distributed as follows :—

1st week	2nd week	3rd week	4th week	1-3 months	3-6 months	6-9 months	9-12 months	N.P.	Total
78	10	8	4	45	49	45	32	1	272

Of these 115 were breast fed.

12 were partly breast fed.

10 were mixed feeding (breast and artificial feeding).

97 were artificially fed.

In 1 case no particulars were obtained (found dead).

In 37 cases feeding was not commenced due to prematurity.

Regarding the feeding, the ages at which those infants died were as follows :—

	1st month	2nd month	3rd month	4th month	5th month	6th month	7th month	8th month	9-12 months	Total	Feeding not commenced	No Particulars	Total
Breast ..	44	9	7	6	5	7	4	6	17	115	—	—	—
Partly Breast ..	0	0	2	0	0	1	2	2	5	12	—	—	—
Mixed ..	3	1	0	1	0	1	2	2	0	10	—	—	—
Artificial ..	17	7	10	11	10	6	7	6	23	97	—	—	—
Totals ..	64	27	19	18	15	15	15	16	45	234	37	1	272

In 271 cases in which particulars were obtained, 40 mothers were engaged in work outside their own homes ; and 231 were not thus engaged.

32 children who died were illegitimate.

33 who died were twin births.

62 deaths were due to prematurity.

In addition to deaths of infants under one year of age, 100 deaths of children from 1-5 years of age were noted by the Department.

Births.

(a) Number registered (corrected)	3,125
(1) Legitimate	2,940
(2) Illegitimate	185
(b) Number notified	3,425
(c) Number classified according to source of notification (doctor, midwife, etc):—	
Doctor	138
Doctor and Midwife	238
Midwife	757
Maternity Ward, D.R.I.	1,696
Maryfield Hospital...	103
Clement Park Maternity Home	338
Parents	9
Other sources	146
(d) Number of stillbirths (births of dead children)	157

PARTICULARS OF BIRTHS NOTIFIED AND REGISTERED IN DUNDEE DURING 1937.

Number of births taken from Registrars' Weekly Returns (including transfers out)	3363
Difference between Notification and Registration (1936-1937 and 1937-1938)	7
	3370
(1) Number of live births occurring in Dundee	3357
Number of stillbirths	157
(2) Total number of births occurring in Dundee	3514
(3) Number of births notified, in accordance with the Act—i.e., 97.4% of total number of births (3514)	3425
(4) Number of live births notified—i.e. 97.2% of live births (3357)	3265

CLASSIFICATION OF NOTIFICATIONS.

Attendance in relation to notification:—

By whom Notified.	Notified.	Unnotified.	Total.	Total cases attended.	Percentage of total births.
Doctors	138	83	221	376	10.7
Doctor and Midwife	238	—	238	238	6.7
Midwives	757	4	761	761	21.9
Mat. Ward D.R.I....	1,696	—	1,696	1,696	48.2
Maryfield Hospital	103	—	103	103	2.9
Clement Pk. Mat. Home	338	—	338	338	9.6
Parents	9	—	9	—	—
Other Sources	146	—	146	—	—
Found Dead	—	2	2	2	—
	3,425	89	3,514	3,514	100.0

STILLBIRTHS

157 stillbirths were notified during 1937.

29 of these occurred in the practice of Midwives which were classified as follows :—

	Macerated Foetus	Complicated Labour	Congenital Deformities	Unclass- ified	Total
Full time Infants	7	6	1	4	18
Premature Infants	5	3	1	2	11

Maternal Mortality.

- (a) Number of deaths resulting from miscarriage or childbirth 25
- (b) Number of deaths resulting from Puerperal Sepsis (notified 4 ; unnotified 2 6

During 1937 an inquiry was made into 34 deaths of women occurring in childbirth or within 28 days after, or later if illness originated during pregnancy, childbirth or puerperium. 9 of the above deaths occurred in women whose homes were outwith the Dundee boundary, but who had been brought into the City for hospital treatment of complications arising during pregnancy, parturition or puerperium, and the information regarding these cases was sent to the medical officers of the districts to which they belonged.

In the 25 Dundee deaths the attendants at birth were—Maternity Ward Dundee Royal Infirmary I.P. 18, Died before admission to Maternity Department, 1 ; Doctor and Midwife 4 (of which 2 cases were admitted to Maternity Ward for completion of labour); Midwife 1 ; Nursing Home 1.

CLASSIFICATION OF CERTIFIED CAUSES OF DEATH (25 cases) :—

(a) Deaths from emergencies and other causes directly due to Parturition (10 cases) :—

Puerperal Sepsis ; Cerebral Embolism	...	1
Puerperal Sepsis ; Streptococcal Peritonitis ; Toxaemia	... ..	1
Peritonitis following Caesarian Section	...	1
Placenta Praevia , Septicaemia	... ..	1
Placenta Praevia with Ante and Post-partum Haemorrhage	... ..	1
Retained Placenta ; 3rd stage Haemorrhage		1
Retained Placenta ; Chronic Nephritis	...	1

Albuminuria of Pregnancy ; Induction ; Instrumental Delivery ; Oedema of Lungs ; Cardiac Failure	1
Probably Cardiac Failure due to Embolism during Caesarian Operation under Ethyl Chloride and Ether Anaesthesia ...	1
Pernicious Vomiting of Pregnancy ...	1
	— 16

(b) Causes of Death not directly connected with Parturition (4 cases) :—

Anaemia Myocarditis ; Pregnancy ; Cardiac Failure	1
Anaemia ; Abortion ; Obstetrical Shock .	1
Broncho pneumonia (6½ months miscarriage)	1
Mitral Stenosis ; Caesarian Section ; Parametritis Sepsaemia	1
	— 4

(c) Causes of Death associated with Pregnancy but not with Parturition (2 cases) :—

Parametritis with Pelvic Abscess (seen after death) ; Toxaemia Myocarditis ; 3 months Pregnancy	1
Uncontrollable Vomiting of Pregnancy ...	1
	— 2

(d) Causes of Death not due to Parturition (9 cases) :—

Influenza ; Hyperemesis Gravidarum ; Influenzal Pneumonia	1
Influenzal Broncho pneumonia	1
Mitral Stenosis ; Cardiac Failure following ' Child birth '	1
Chronic Myocarditis (several years) ; Ovarian Cyst ; Torsion (2 days) ; Acute Asthma (1 day)	1
Tuberculosis Adenitis ; Anaemia	1
Pulmonary Tuberculosis	1
Asthma ; Myocardial Degeneration ...	1
Chronic Endocarditis ; Mitral Stenosis ; Cardiac Failure	1
Broncho-pneumonia ; Pregnancy ...	1
	— 9

Report Under Midwives and Maternity Homes (Scotland) Acts, 1915 and 1927.

The following is a list of Midwives who, during 1937, intimated their intention to practise Midwifery in the City of Dundee.

NAME and ADDRESS	C.M.B. Reg. No.	REMARKS.
Anderson, Mrs Isabella D.—197 Princes Street ...	2,863	Trained.
Andrews, Miss Dora B.—St Ronan's Hostel, Dalkeith Rd.	8,253	Trained.
Angus, Mrs. Clementina—96 King St., B.F. ...	3,057	Bona fide.
Arnott, Miss Jean—36 Dundonald Street ...	1,182	Bona fide.
Bowman, Mrs. Jessie—10 Hilltown ...	4,958	Trained.
Craig, Mrs. Margaret—10 Albert Street ...	6,994	Trained.
Dobson, Mrs Rachel H.—Elmridge, 6 Glamis Drive	4,423	Trained.
Duffus, Miss Mary—34 Victoria Street ...	2,567	Trained.
Gouk, Miss Margaret R.—10 Tofthill, Lochee ...	6,221	Trained.
Gowans, Miss Eliza—2 Erskine Street ...	5,925	Trained.
Gunn, Mrs. Sarah—9 Corso Street ...	5,404	Trained.
King, Mrs Ellen—53½ Perth Road... ..	755	Trained.
Lowe, Mrs. Jane R.—2 Brown Street ...	432	Trained.
Masson, Mrs. Jane—3 Tayview Buildings, B.F.	3,122	Bona fide
Neill, Miss Jane Y.—71 Ann Street ...	7,434	Trained.
Ramsay, Mrs Ann C.—281 Hilltown ...	733	Trained.
Rickard, Mrs Helen M.—125 Perth Road ...	6,453	Trained.
Smith, Mrs. Jamesina—73 Church Street ...	1,553	Bona fide
Stewart, Miss Jean B.—5 Balgavies Avenue ...	7,713	Trained.
Suttie, Miss Annie—43 Tullideph Road ...	4,174	Trained.
Thomson, Mrs Mary—16 Fleming Gardens, S. ...	10,225	Trained.
Tulloch, Mrs. Isabella—20 Corso Street ...	6,231	Trained.
Williamson, Miss Edith—55 Dens Road ...	10,712	Trained.
White, Miss Jeannie C. —77 Albert Street ...	13,037 (Scot.)	Trained.
	76,133 (Eng)	
Brodie, Miss Chrissie.—Craigie Nursing Home, ...	7,947	Trained.
Snape, Miss Violet E.—Clement Park Maternity Home	8,644	Trained.
Castle, Miss Daisy do.	11,776	Trained.
Collings, Miss Lilian F. do.	12,098	Trained.
Ross, Miss Johanna do.	11,461	Trained.
Martin, Miss Violet M. do. Matron	9,999	Trained.
Dixon, Miss Norah do.	12,230	Trained.
Tucker, Miss Florence A. D. do.	12,408	Trained.
Holt, Miss Doris do.	12,856 (Scot.)	Trained.
	97,655 (Eng.)	
Fiddler, Miss Elsie M. do.	99,962 (Eng.)	Trained.
Nicolls, Miss Elsie do.	90,096 (Eng.)	Trained.
Lacey, Miss Mary M. do.	100,111 (Eng.)	Trained.
Jeffrey, Miss Christina C.—Fort House Nursing Home	12,841	Trained.
Winstanley, Miss Maud—Fernbrae Nursing Home	27,846 (Eng.)	Trained.
Cunningham, Miss Aline do.	5,805	Trained.
Webster, Miss Ann C. do.	10,635	Trained.
Burness, Miss Flora M. do.	11,062	Trained.
Dawson, Miss Eveline do.	91,285 (Eng.)	Trained.
Milne, Miss Jean D. do.	5,990	Trained.
Morrison, Miss Elizabeth do.	10,772	Trained.
Webster, Miss Christina do.	10,196	Trained.
Tyrell, Miss Margt. B. do.	12,920	Trained.
Oudney, Miss Euphemia R. M. do.	4,077	Trained.

(1) In January, 1937, 19 midwives notified their intention to practise midwifery in Dundee. During the year 18 midwives gave notice of their intention to practise in Dundee. 2 midwives left town.

(2) This leaves on the local roll of midwives at the end of December, 1937, 45 names. 17 of the 47 are actually practising as midwives.

(3) The midwives attended a total of 994 births (including 238 cases where the midwife acted as a midwife though a doctor was in attendance)—that is 28.4 per cent. of the total births occurring in the City, including stillbirths.

(4) The extent of the individual practice of each midwife varies, one midwife having 118 cases, another only attending 5 cases. The average to each midwife in practice is 59 cases.

(5) 79 visits were paid by the Inspector of midwives and her Assistant to the midwives' homes ; 14 visits were paid to the 7 Registered Maternity Homes in Dundee.

The midwives have sent 492 mothers to ante-natal clinics or to private doctors for advice and supervision.

There has been a slight decrease in the total number of cases attended by midwives during the year—(999 as compared with 1038 in 1936).

823 Notifications have been received from midwives as follows :

(1) Application for medical assistance—(a) Mother	...	706
(b) Child	...	53
(2) Notification of death—(a) Mother	...	0
(b) Child	...	1
(3) Notification of stillbirth	...	11
(4) Notification of liability to be a source of infection	...	7
(5) Notification of laying out a dead body	...	1
(6) Notification of artificial feeding	...	5
(7) Notification of patient's failure to follow advice	...	39

There were 39 midwives' patients who refused to follow advice as to obtaining Ante-Natal care, as compared with 32 in 1936.

441 Ante-Natal cases who were not complaining of illness were sent for examination to the Ante-Natal clinic.

Ante-natal (492).

Examinations ...	...	...	441
Varicose Veins...	...	...	13
Purulent Discharge ...	...	...	10
Pain (various) ...	...	...	8
Sickness ...	...	...	5
Constipation (severe) ...	...	...	3
Albuminuria ...	...	...	3
Ante-Partum Hæmorrhage	...	...	2
Dimness of Vision ...	...	...	1
Rash ...	...	...	1
Headache ...	...	...	1
Sore on Vulva ...	...	...	1
Pain in Bladder ...	...	...	1
Oedema ...	...	...	1
Carious Teeth ...	...	...	1

Labour (186).

Ruptured Perineum ...	...	99
Prolonged Labour ...	...	61
Abnormal Labour ...	...	13
Ante-partum Hæmorrhage	...	4
Retained Placenta ...	...	3
Funis Presentation ...	...	2
Collapse during Labour	...	1
Hysteria during Labour	...	1
Placenta Prævia ...	...	1
Premature Labour ...	...	1

Post-natal (28).

High Temperature ...	...	9
Pain (various) ...	...	4
Phlebitis ...	...	4
Bronchitis ...	...	2
Exhaustion ...	...	2
Abscess (Face)...	...	2
Varicose Veins...	...	1
Swollen Labia ...	...	1
Sickness ...	...	1
Prolapse Uterus ...	...	1
Mastitis ...	...	1

Infants (53).

Inflammation of Eyes ...	17
Premature and Feeble Infants	10
Stillbirths ...	8
Congenital Malformation	5
Inability to Suckle ...	1
Swollen Testicle ...	1
Hæmentemesis ...	1
Death of Infant ...	1
Broken Umbilical Cord ...	1
Congenital Heart ...	1
Sceptic Blisters ...	1
Icterus Neonatorum ...	1
Artificial Feeding ...	1
Rash ...	1
Acute Phimosis ...	1
Difficulty in Breathing ...	1
Swelling of Right Leg ...	1

DUNDEE, 1937.

BIRTHS IN AREA OR DISTRICT.

Total No. of Births during 1937 (uncorrected)	Total No. of Deaths of Newly-Born Children during 1937 (within 10 days)	Actual No. of Births Attended by Midwives during 1937	Actual No. of Deaths of Newly-Born Children occurring in the Practice of Midwives during 1937 (within 10 days of Birth)	Actual No. of Cases not attended at birth by a Doctor or Midwife during 1937	Actual No. of Cases not attended at birth by a Doctor or Deaths
3363	81	995	14	Births	2
				Deaths	2

CASES OF OPHTHALMIA NEONATORUM.

Total No. of Cases during 1937	Actual No. of Cases occurring in the Practice of Midwives during 1937	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1937
54	21	0

CASES OF PUERPERAL SEPSIS.

Total No. of Cases during 1937	Total No. of Deaths during 1937	Actual No. of Cases occurring in the Practice of Midwives during 1937	Actual No. of Deaths occurring in the Practice of Midwives during 1937	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1937	Deaths
22	*4 and *2 unnotified cases found post mortem	3	0	Cases	0

CASES OF PUERPERAL PYREXIA.

Total No. of Cases during 1937	Total No. of Deaths during 1937	Actual No. of Cases occurring in the Practice of Midwives during 1937	Actual No. of Deaths occurring in the Practice of Midwives during 1937	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1937	Deaths
47	*2	12	0	Cases	0
				Deaths	0

CASES OF STILL-BIRTH (DEAD BORN).

Total No. of Cases during 1937
157

Actual No. of Cases occurring in the Practice of Midwives during 1937
29

CASES OF EMERGENCY.

Total No. of Cases of Emergency, in which Medical Practitioners have been called in under Section 22 of the Midwives (Scotland) Act, 1915, during 1937, distinguishing the different cases of emergency

Ante-natal	Labour	Post-natal	Infant	Total
51	186	28	53	318

441 Ante-natal cases who were not complaining of illness, were sent for examination to the Ante-natal Clinics and private Doctors.
* 4 cases notified as "Puerperal Sepsis"—Final diagnosis at death :—

- 4 PUERPERAL SEPTICAEMIA, and
- 2 unnoticed cases found post mortem.

* 1 case notified as "Puerperal Pyrexia"—Final diagnosis at death :—
1 PULMONARY TUBERCULOSIS.

Health Visitors' Work (Maternity Services Only).

Total number of homes visited,	5,986
Total number of visits to these homes,	20,565
Average number of visits per home,	3
Total number of cases visited,	21,726

(a) Routine Visits :—

		1st visits.	Revisits	Total.
Babies	... ..	2,769	13,083	15,832
Children (1-2)	...	—	5,276	5,276
Mothers, A.N.	...	32	22	54
P.N.	...	11	40	51

(b) Notifiable Diseases and Special Visits.

Ophthalmia Neonatorum	...	...	475
Infantile Diarrhoea	...	...	16
Puerperal Pyrexia	...	...	15
Puerperal Fever	...	...	4
Maternal Deaths Enquiries	...	...	3

Of the 2,769 babies visited for the first time :—

106 were premature

2663 were fulltime births

Of the 2,719 homes of the newly born visited for the first time the home conditions were :—very good, 252 ; good, 1,270 ; medium, 1,053 ; bad, 144.

Special information as to feeding of infants at birth and at 6 months :—

	Breast.	Partly Breast.	Mixed.	Artificial.	Still born.	Dead at first visit.	Total.
At first visit	2,146	116	27	295	110	75	2,769
At 6 months old	669	81	82	559	—	—	1,391

Ante-Natal Consultations.

1. Central A.N. Clinic.

REPORT BY MARGARET FAIRLIE, M.B., Ch.B.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending	...	...	...	420
(b) Total number of attendances	...	...	...	801
(c) Classified summary of conditions found :—New Cases, 381.				
Advice only	...	...	...	345
Conditions due to Pregnancy	...	...	...	12
Ante-Partum Hæmorrhage	...	...	...	2
Albuminuria	...	...	...	8
Vomiting	...	...	...	1
Hydramnios	...	...	...	1
Conditions aggravated by Pregnancy	...	...	...	1
Discharge	...	...	...	1
Conditions complicating Pregnancy	...	...	...	23
Contracted Pelvis	...	...	...	2
Malpresentations	...	...	...	14
Displacements	...	...	...	1
Dead Foetus	...	...	...	1
Various	...	...	...	5
(d) Number of Cases :—				
	New Cases.	Re-visits.		
(1) Referred to Ante-natal Ward	5	8		
(2) Referred to Family Doctor	3	1 (not pregant)		
(3) Treated at Clinic	...	373	411	

Post-Natal and Other Consultations.

(a) Total number of Post-Natal cases attending	...	...	13
(b) Total number of attendances	...	...	14
(c) Classified summary of conditions found :—New Cases, 13.			
Advice	...	...	9
Various	...	...	4

(d) Number of Cases :—

	New Cases.	Re-visits.
(1) Referred to D.R.I. ...	2	0
(2) Referred to Family Doctor ...	0	0
(3) Treated at Clinic ...	11	1

2. Polepark A.N. Clinic.

REPORT BY MARGARET SCOTT-DICKSON, M.B., Ch.B., D.P.H.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending ... 193

(b) Total number of attendances ... 345

(c) Classified summary of conditions :—New Cases—184

Advice only ...	111
Not Pregnant ...	1

Conditions due to pregnancy ... 13

Ante-partum Haemorrhage ... 1

Albuminuria ... 5

Vomiting ... 4

Oedema ... 3

Conditions aggravated by Pregnancy ... 27

Discharge ... 5

Varix ... 22

Conditions complicating Pregnancy ... 11

Contracted Pelvis ... 4

Malpresentations ... 6

Twins ... 1

(d) Number of Cases :—

	New Cases.	Re-visits.
(1) Referred to Ante-Natal Ward	2	2
(2) Referred to Family Doctor	0	0
(3) Treated at Clinic	182	159

Post-Natal Consultations.

(a) Total number of Post natal cases attending	...	...	3
(b) Total number of attendances	...	...	6
(c) Classified Summary of conditions found:—New Cases	3		
Purulent Discharge	...	...	1
Various	...	...	2
(d) All the Post natal cases were treated at the Clinic.			

Child Welfare Consultations.

Eight weekly sessions of 2½ hours each were held in Dundee, including Lochee and Broughty Ferry, with five weekly sessions in Dundee and two in Lochee for special Ultra Violet Light treatment.

	Cases.	Attendances.
(1) Under 1 year of age	1,576	13,785
(2) Over 1 year of age	1,015	13,626
(3) Mothers—A.N.	10	41
P.N.	53	87
	<hr/> 2,658	<hr/> 27,539

Diseases recorded on admission to the Clinics :—

(1) Children under 1 year of age.

Of the 1,142 children under 1 year of age attending the 6 clinics for the first time, 121 (10.6%) showed no disease or congenital defect. The remaining 1021 showed 2,233 diseases or defects, classified as follows :—

Diseases of the Digestive System	...	...	1,069
Diseases of the Respiratory System	...	...	197
Diseases of Nutrition :—			
Rickets	...	...	14
Other disorders of Nutrition	...	...	35
			— 49
Diseases of the Skin	...	...	204
Diseases of the Nervous System	...	...	1
Diseases of the Eye	...	...	38
Diseases of the Ear, Nose and Throat	...	...	13
Congenital Defects	...	...	588
Surgical Conditions	...	...	18
Infectious Diseases :—			
Whooping Cough	...	...	2
Various	...	...	55
			<hr/> 2,233

(2) Children over 1 year of age.

Of the 92 children between one and five years of age attending the clinics for the first time, 5 (5.4%) showed no disease or congenital defect. The remaining 87 showed 128 diseases or defects, classified as follows:—

Diseases of the digestive system	15
Diseases of the respiratory system...	23
Diseases of nutrition :—	
Rickets	27
Other disorders of Nutrition	4
	— 31
Diseases of the skin	26
Diseases of the eye	2
Diseases of the ear, nose, and throat	5
Congenital defects	13
Surgical conditions	8
Infectious Diseases :—	
Whooping Cough	2
Various	5
	— 128

(3) Mothers.

5 Ante-natal mothers attended the ordinary Clinics suffering from the following diseases :—

Diseases of the Digestive system	2
Disease of the Respiratory system	1
Various	2
	— 5

36 Post-natal mothers attended the Clinics suffering from the following diseases :—

Diseases of nutrition	29
Surigical conditions	2
Genito-urinary diseases	1
Various	4
	— 36

Special Treatment Centres.

A. Dental Clinic.

Report by H. Gordon Campbell, L.R.C.P. & S.E., L.D.S.

(a) Number of attendances : —

(1) Mothers	...	...	...	...	77
(2) Children	...	...	...	...	91
					— —
					168

(b) Classified summary of conditions recorded on admission :—

(1) Mothers—(35.)

Advice only, 2 ; Dental Caries, 25 ; Septic Roots, 1 ;
Gingivitis, 4 ; Tartar, 1 ; Alveolar Abscess, 1.

(2) Children—(61).

Dental Caries, 33 ; Alveolar Abscess, 19 ; Gingivitis, 1 ;
Tartar, 4 ; Erupting Teeth, 2 ; Injury to Gum and Lip
1 : Enlarged Gland, 1.

(c) Classified summary of treatment carried out—(207)

Advice, 29 ; Extractions (temporary) 1 ; (permanent),
94 ; Fillings (temporary) 14 ; (permanent) 7 ;
Treatment of Alveolar Abscess, 24 ; Dressings, 27 ;
Aconite and Iodine treatment, 15 ; Special gum treat-
ment, 8 ; Brushing and Scaling, 16.

B. Ultra Violet Light Clinic.

Number of Cases.

	New Cases.	From 1936.	Total.	Total Attendances.
Babies	58	4	62	988
Children	96	46	142	2,585
	154	50	204	3,573

Babies.

			Not Improved	Not Improved	Not Attending	Still Attending	Total.
Debility ... ..	...	...	5	0	1 (Wh. C.)	1	7
Marasmus ... ..	...	...	0	1 (ACH)	0	0	1
Late Dentition ... ..	...	...	12	{ 2 (1 died) 1 (ACH)	19	3	36
Rickets ... ..	...	...	4	{ 2 (1 IH) 1 (DRI)	5	4	15
Mongol ... ..	...	...	0	1	0	0	1
Bronchial Catarrh ... ..	...	...	0	0	1	0	1
Adenitis ... ..	...	...	0	0	1	0	1
			21	6	27	8	62

Children.

			Not Improved	Not Improved	Not Attending	Still Attending	Total.
Not thriving	...	...	1	0	1	0	2
Debility	...	...	14	{ (1 IH) 3 (1 left town)	9	4	30
Marasmus	...	...	0	0	0	1	1
Anaemia	...	...	3	0	1	1	5
Late Dentition	...	...	15	1 (M.H.)	16	4	36
Late Walking	...	...	3	0	3	0	6
Rickets	...	...	20	{ 3 (1 ACH) 1 (dead)	18	11	52
Mentally Backward	...	...	1	0	0	0	1
Bronchial Catarrh	...	...	1	0	2	2	5
Weak Ankles	...	...	0	0	1	0	1
Extreme Dental Caries	...	...	0	0	1	0	1
Tender Gums	...	...	0	0	1	0	1
Excessive Salivation	...	...	0	0	0	1	1
			58	7	53	24	142

Day Nurseries.

(a) Number of attendances :—

(1) Under 1 year of age	2,543
(2) Over 1 year of age	13,533

(b) Charges made :—

4s. 6d. for 5½ day week for each child, with a reduction of 1s. in the case of 2 members of 1 family, and 2s. a week if 3 members of the same family are attending at the same time.

Food and Milk.

The conditions and arrangements for the supply of food and milk to expectant and nursing mothers and children under five years of age are as follows :—

All cases are granted on medical recommendation and only to individuals who are attending a Centre. The usual period covered by a grant is one calendar month ; and vouchers are renewed as often as may be necessary, but only after a further medical examination of the person for whom the grant is made.

Expectant mothers are granted free dinners at approved restaurants or a daily supply of milk during the last three months of pregnancy or longer in special cases.

Nursing mothers receive the same for a period of 6—9 months provided they continue to nurse the infant.

The usual amount of milk supplied is one pint each daily to children but mothers may receive more in special cases e.g. albuminuria cases where a milk diet is recommended.

Liquid milk is delivered at the homes or may be fetched by the mothers from approved shops.

Apart from the Home Visitation of the families by the Health Visitors no special steps are taken to ensure the restriction of the use of the milk to the individual for whom it has been granted ; but only on rare occasions are more than two pints per day given to any household, as the experience of the Health Visitors has been that if larger quantities are supplied there is a tendency to waste the milk.

Dried Milk and various supplementary foods are given free to the children attending the clinics on the orders of the Medical Officer or they may be purchased at cost price.

The monetary scale adopted as a basis for consideration of applications for material assistance is that of the local Public Assistance Department.

A Table is appended showing the amount of milk and other foods supplied, and the cost of the same.

Total Quantity Supplied.

	No. of Persons Supplied.		Mothers.		Children.		Total Cost to Local Authority.	Amount Recovered by Local Authority.	Nett Cost.
	Mothers.	Children.	Supplied Free.	At Cost Price.	Supplied Free.	At Cost Price.			
Liquid Milk ... (Grade Pasteurised)	9	519	117½	—	12268	—	£1255 1 0	—	£1255 1 0
<i>Dried Milks</i>									
Ostermilk ...	—	129	—	—	152	1013	£92 3 0	£79 18 0	£12 5 9
Benger's Food ...	—	2	—	—	16	—	1 9 4	0 0 0	1 9 4
Allen & Hanbury ...	—	1	—	—	1	9	1 9 1	1 6 7	0 2 6
Lactogen ..	—	1	—	—	—	25	2 12 1	2 12 1	0 0 0
<i>Other Food Preparations</i>									
Dinners ...	15	—	3762	—	—	—	£141 1 6	—	£141 1 6
<i>Cod Liver Oil and Malt</i>									
Virol ...	—	341	—	—	4093	—	£102 6 6	—	£102 6 6
Virolax ...	—	128	—	—	20½	111	10 18 9	£9 5 0	1 13 9
Chymol ...	—	93	—	—	½	88½	7 8 4	7 7 6	0 0 10
Farex ...	—	22	—	—	1¾	6	0 10 4	0 8 0	0 2 4
Farex ...	—	1	—	—	—	1	0 1 5	0 1 5	—
							£1615 2 1	£100 18 7	£1514 3 6

Puerperal Sepsis (24 Cases)

	Notified	Unnotified	Primipara	Multipara	Admitted to Hospital	Nursing Home	Nursed at Home	Recovered	Died
Doctors ...	10	...	1	4	5	...	...	4	1
Midwives ...	...	...	1	1	2	...	...	2	...
Doctor & Midwife	...	...	...	1	1	...	...	1	...
Maternity Ward-									
In-patient ...	11	2	7	5	9 (KCH) 12 (DRI)	...	...	8	4
Out-patient...	...	...	...	...	...	...	...	...	...
Maternity Home	...	...	3	...	3	...	...	2	1
Nursing Home	...	...	...	...	...	...	...	...	...
Maryfield									
Hospital ...	1	...	...	1	1	...	...	1	...
Totals ...	22	2	12	12	24	...	...	18	6

		RECOVERED		DIED	
		Primipara.	Multipara.	Primipara.	Multipara.
Where delivered :—					
Home ...	...	1	6	1	...
Maternity Ward D R.I.					
In-patients ...	...	4	4	5	1
Out-patients ...	...	...	...	...	...
Maternity Home	...	2	...	1	...
Nursing Home ...	...	...	...	...	...
Maryfield Hospital	...	...	1	...	...
		7	11	5	1

Where treated :—					
Home ...	...	...	...	...	...
D.R.I. ...	...	...	1	2	11
King's Cross Hospital	7	...	...	3	...
	7	1	5	11	

Of the 18 cases which recovered the home conditions were good in 11, bad in 7 ; and of the cases which died the home conditions were good in 5, and not known in one case.

PARTICULARS OF CASES.

	Primipara.	Recovered.	Died.	Total.			
Normal Confinement		3	...	3			
Normal Confinement ;							
Deficient Membranes		1	1	2			
Normal Confinement ;							
Ruptured Perinaeum		2	...	2			
Instrumental delivery ;							
Ruptured Perinaeum		1	1	2			
Instrumental delivery ;							
Adherenta Placenta	1	1			
Caesarian Section	2	2	7	5	12

PARTICULARS OF CASES.

Multipara.	Recovered.	Died.	Total.			
Normal Confinement ...	6	...	6			
Normal Confinement ;						
Ruptured Perinaeum	1	...	1			
Septic Abortion	3	...	3			
Incomplete Abortion ...	1	...	1			
Placenta Praevia ;						
Post.partum Haemorrhage ...		1	1	11	1	12

Puerperal Pyrexia (47 Cases).

	Notified	Primipara	Multipara	Admitted to Hospital	Nursing Home	Nursed at Home	Recovered	Died
Doctor ...	32	1	1	2	—	—	3	—
Midwives ...	—	3	5	9	—	—	8	—
Doctor and Midwife	—	2	2	3	—	1	4	—
Maternity Ward, I.P.	13	9	5	13	—	1	13	—
O.P.	1	—	7	7	—	—	7	—
Maternity Home ...	—	6	2	7	1	—	8	—
Nursing Home ...	—	2	1	—	2	—	3	—
Maryfield Hospital ...	1	—	1	—	1	—	—	1
	47	23	24	41	4	2	46	1

Where Delivered.	Recovered.		Died.	
	Primipara.	Multipara.	Primipara.	Multipara
Home	6	8	—	—
Maternity Ward—I.P.	9	4	—	—
O.P.	—	7	—	—
Maternity Home	6	3	—	—
Nursing Home ...	2	1	—	—
Maryfield Hospital ...	—	—	—	1
	23	23	1	1

Where Treated.				
Home	2	—	—	—
Dundee Royal Infirmary	—	—	—	—
King's Cross Hospital	19	22	—	—
Maternity Home ...	1	—	—	—
Nursing Home ...	1	1	—	—
Maryfield Hospital ...	—	—	—	1
	23	23	—	1

Of the 46 cases which recovered, the home conditions were good in 26 ; bad in 17, and not known in 3 ; and in the one case which died the home conditions were bad

PARTICULARS OF CASES.

Primipara.	Recovered.	Died.	Total.			
Normal Confinement ...	10	...	10			
Normal Confinement ;						
Mitral Stenosis	1	...	1			
Normal Confinement ;						
Internal Lacerations	1	...	1			
Normal Confinement ;						
Ruptured Perinaeum	4	...	4			
Normal Confinement ;						
Episiotomy	1	...	1			
Induction of Labour	1	...	1			
Instrumental Delivery ;						
Episiotomy ...	1	...	1			
Instrumental Delivery ;						
Ruptured Perinaeum	2	...	2			
Caesarian Section ...	1	...	1			
Abortion	1	...	1	23	0	23

Multipara.	Recovered.	Died.	Total.			
Normal Confinement	16	1	17			
Normal Confinement ;						
Adherent Placenta	1	...	1			
Normal Confinement ;						
Adherent Placenta ;						
Ruptured Perinaeum	1	...	1			
Induction of Labour						
(Normal Labour) ...	1	...	1			
Induction of Labour ;						
Instrumental Delivery	1	...	1			
Concealed Haemorrhage						
(Normal Labour) ...	1	...	1			
Abortion	2	...	2	23	1	24

One case had been notified as Puerperal Pyrexia, in which the cause of death was "Pulmonary Tuberculosis."

3 cases of Puerperal Fever and 4 cases of Puerperal Pyrexia followed instrumental delivery. There were 6 deaths from Puerperal Fever (2 unnotified).

Number of cases of Puerperal Fever and Puerperal Pyrexia where the Local Authority provided assistance on the request of the Medical Practitioners for :

(i.) Consultant Service	...	...	...	0
(ii.) Bacteriological Examinations	...	...	...	0
(iii.) Skilled Nursing at Home	..	...	...	0
(iv.) Hospital Treatment	...	...	...	39

Notifications were sent promptly ; and, in the majority of cases the opportunity of removal to Hospital for treatment was taken advantage of immediately.

Ophthalmia Neonatorum.

	Doctors	Midwives	Doctor and Midwife	Mat. Hosp. In-Pat.	Mat. Hosp. Out-Pat.	Maryfield Hospital.	Maternity Home.	Mat. and C.W. Dpt.	Eye Institution	Nursing Home	Found Dead	Total.
By whom notified...	23	5	1	8	1	3	—	13	—	—	—	54
By whom attended	1	19	2	18	7	3	3	—	—	1	—	54
Total No. of Births attended in 1937	376	761	238	1696		103	338	—	—	—	2	3514

Treated in Institutions	Treated at Home	Type of Case		Result							
		Severe	Mild	Complete Recovery	Injury to Sight	Died during Treatment	Left Town dur'g T't'm't	Not Visited	Initial Visits	Re-visits	
Maternity Home 2 King's Cross H. 12 Maryfield H. 1 Dundee R. In. —	15	39	14	40	54	—	—	—	2	52	423

Of the 14 severe cases 5 were attended by Midwife at birth ; 7 by the Maternity Dep., D.R.I. ; and 2 by Maryfield Hospital.

Smears were taken in 42 cases. 3 were positive ; 17 were suggestive ; 22 were negative.

In 12 cases smears were not obtained. 7 were in institutions, 3 eyes were clear at first visit and 2 were not visited.

In no case was there any loss of vision.

Rickets.

14 infants under one year showed clinical signs of commencing Rickets.

Only one of these cases was under 6 months, the others being between 6 months and 1 year. Their feeding was as follows :— entirely breast fed, 5 ; breast fed for 4 months or less, then on mixed or artificial feeding, 4 ; fed from birth on fresh cow's milk, 3 (all twins) ; fed from birth on condensed milk, 2.

Of the 92 children admitted between the ages of 1 and 5 years 27 (29%) showed some signs of clinical rickets on admission.

All these children were under 2 years of age and enquiries as to the feeding from birth elicited the following information :—

Breast fed for less than 1 year	...	9 out of a total of	29
Breast fed for over one year	...	3 out of a total of	9
Mixed Feeding	... ..	0 out of a total of	2
Partly Breast fed (for a few months only)		6 out of a total of	23
Fed on fresh cow's milk	... ..	5 out of a total of	19
Fed on artificial food	... ..	4 out of a total of	10

Deaths from Infantile Diarrhoea.

25 deaths occurred from infantile diarrhoea during 1937.

Of these 9 were breast fed ; 3 were partly breast fed ; 11 were artificially fed ; 2 had mixed feeding.

With reference to feeding, the ages at which these infants died were as follows :

	1st Mnth.	2nd Mnth.	3rd Mnth.	4th Mnth.	5th Mnth.	6th Mnth.	7th Mnth.	8th Mnth.	9-12 Mnth.	Tl
Breast ...	0	3	0	1	1	0	1	1	2	9
Partly Breast	0	0	1	0	0	0	0	1	1	3
Mixed ...	0	1	0	0	0	1	0	0	0	2
Artificial ...	0	0	2	1	1	0	3	0	4	11
Totals ...	0	4	3	2	2	1	4	2	7	25

Of the 25 deaths from infantile diarrhoea in which particulars were obtained :—

5 occurred in houses of one room, in which there were 18 occupants.
14 occurred in houses of two rooms, in which there were 74 occupants.

4 occurred in houses of three rooms, in which there were 14 occupants.

2 occurred in houses of four rooms in which there were 9 occupants.

The family history showed that in these families :—
53 had died in the first year of life.

32 were still alive.

None of the mothers worked outside their own homes.

Voluntary Agencies.

DUNDEE VOLUNTARY HEALTH WORKERS' ASSOCIATION.

During the year 360 knitted garments and 381 sewn garments were made by the members of the Association for the clinics; and 390 were provided for the Day Nurseries.

692 garments supplied by the Association were distributed at the clinics. Of these 184 were sold at cost price, 479 at quarter cost price, and 29 were given free on the recommendation of the Medical Officer.

The following voluntary institutions are also associated with the Scheme, and receive an annual grant from the Dundee Town Council :—

(1) SALVATION ARMY HOME.

Report of the Maternity Home—Florence Booth House, Clement Park, Lochee.

Number of non-paying cases in the Home on	
January 1st, 1937	27
Number of non-paying cases admitted during 1937	30
Number of cases confined in the Home during 1937	24
Number of days in the Home during 1937	8,346

(2) ST. RONAN'S HOME.

This is a Preventative and Rescue Home which admits pregnant and nursing women.

Number of cases in the Home on January 1st, 1937	7
Number of cases admitted during 1937	47
Number of days in the Home during 1937	36,95

(3) LOCHEE DAY NURSERY.

Number of new cases admitted :—

Under 1 year of age	8
Over 1 year of age	25

Total attendances :—

Under 1 year of age	730
Over 1 year of age	4,067

(4) NURSERY SCHOOL.

Number of children admitted in 1937	56
Re-admitted, from 1936	46
Average number on Roll	46
Total number of attendances in 1937	7,475

Infant Department :—

Number on Roll	6
Total number of attendances in 1937	1,073

PRE-SCHOOL AND SCHOOL MEDICAL SERVICES.

Report by Dr. JAMES A. CUTHBERT,
Deputy Medical Officer of Health (Pre-school and School
Medical Services)

1.—List of Staff.

FULL-TIME STAFF.

Deputy Medical Officer of Health (Pre-School and School Medical Services).

3 Assistant Medical Officers of Health.

2 Dental Officers.

PART-TIME STAFF.

1 Assistant Medical Officer of Health.

1 Ophthalmic Surgeon.

1 Ear, Nose and Throat Surgeon.

1 Dermatologist.

The only change to be recorded in the staff during the year ending 31st July, 1938, is the retiral of Dr A. E. Kidd from the post of Deputy Medical Officer of Health (Pre-School and School Medical Services) in August, 1937, after many years of fine work in the Education Health Service. Dr Kidd retired in excellent health and full vigour, and a loyal staff indicated in no uncertain manner their regret at his departure and their best wishes for many happy years in retirement.

2.—Schools.

The number of schools under routine inspection was 44.

That figure includes Dundee High School and does not include special schools.

The average number of children on the registers was 27,767, which compares with 27,996 for the previous year.

The average number of children in attendance was 24,861, representing 89.53%, as compared with 88.55% in the previous year.

3.—Visits to Schools.

The number of visits to the ordinary schools (as distinguished from special schools) for systematic examinations was	444
Special visits to ordinary schools,	69
Visits to special schools,	60
Total,	573

Average
per visit.

The number of systematic (routine) examinations was	10,201	23
The number of special (non-routine) examinations was	1,193	

In addition to the above, the staff carried out a number of special examinations as follows:—

Applicants for licences under the Corporation's Bye-Laws regulating the Employment of Children,	938
Children as to fitness to proceed to holiday homes, camps, school excursions,	1,567
Juvenile Court cases,	70

4.—Sanitary Condition of Schools.

Heating and Ventilation.—The Plenum system of heating and ventilation in Ancrum Road and Eastern (Broughty Ferry) Schools was replaced by low-pressure hot-water heating and natural ventilation.

There remains now only Stobswell Central School heated and ventilated by the Plenum system, and in this case complaints with regard to the temperature of many rooms and the presence of draughts are so numerous and well founded that it is hoped the necessary alterations will be made at an early date.

Internal Improvements.—In two schools re-flooring work was done and stairs re-treaded. Wooden treads in Stobswell Central School were replaced by granolithic.

Domestic hot-water systems were renewed in three schools.

Eleven schools were repainted.

Sanitary Conveniences.—The latrines in certain of the school playgrounds are far from being satisfactory either structurally or in the condition in which they are kept. There must be adequate supervision of the latrines even from time to time while they are in use, and the cleansing of this part of the school premises is of the utmost importance.

Playgrounds and Drinking Fountains.—Re-surfacing work was carried out in the playgrounds of two schools. The present system of replacing the common cup drinking fountain by modern bubbling fountains as the former fell into disrepair is too slow, and all the old type are to be replaced now by bubbling fountains. The number of fountains in certain playgrounds, e.g., Dens Road School, is quite inadequate, and attention will require to be given to the numbers as well as to the type. One fountain for every hundred children is a desirable minimum.

5.—Organisation and Administration.

No change has been made in the staffing or duties during the past year.

Health Visitors.

There is one central staff of health visitors employed in connection with the schemes of Maternity and Child Welfare, Pre-School and School Medical Services, Infectious Disease, Tuberculosis and Venereal Diseases.

The City is divided into 18 districts, and one nurse is assigned to a district where she is responsible for all visitations in connection with the above services. One nurse is engaged full time at Fairmuir Special School, two are engaged entirely on dental work, one on ophthalmic work, one on ear, nose and throat work, one on ultra-violet rays, one at the Tuberculosis Clinic, two at the Venereal Diseases Clinic, and one is engaged as Assistant Inspector of Midwives.

The total number of health visitors is 28, and their services, for purposes of expenditure, are allocated in the proportion of 9/28 to School Medical Services.

A summary of the work done by health visitors in connection with Pre-School and School Medical Services is as follows:—

444 half-days were occupied in systematic examinations in schools; and

1,942 half-days were occupied at treatment clinics. In addition 18 nurses paid at least a weekly visit to the schools within their districts for follow-up and special examination purposes.

Nurses made a total of 15,450 visits to homes and 2,745 visits to schools and clinics.

That work included :—

Visits to cases of infectious diseases, ...	4,477	in	4,161	homes
Special visits to children 2—5 years,	607	}	2,659	in 2,435 homes
Special visits to children 5—14 years,	2,052			
Visits on account of dirt or neglect, ...	12	in	12	homes
Visits on account of verminous conditions,	100	in	96	homes
Other cases,	7,427	in	5,473	homes

Supervision of Infectious Disease.

This was continued as in the past in close co-operation with the Central Public Health Office. The Health Visitors have carried out the first visit and the supervision of cases and contacts of Measles, Rubella, Whooping Cough and Mumps.

The number of cases visited was—

Measles,	2,198
Rubella,	611
Whooping Cough,	125
Mumps,	118

Rubella became rapidly more prevalent during the early winter months, and the number of visits reached a peak of 379 for January, 1938, by which time Measles had become almost as prevalent. Visits to cases of Measles reached the peak of 765 for April, 1938.

Intimations to Head Teachers of the occurrence of a case of infectious disease and stating the probable date of return to school of the case, if possible, and of the contacts was made from this Department through the Attendance Department. The total number of such intimations was 3,695.

Considerable difficulty is experienced, in epidemic times especially, in providing adequate supervision of infectious cases and contacts and an efficient service of " Clearance Certificates " to Head Teachers. A pamphlet prepared by the Medical Officer of Health, giving a list of suggested periods of exclusion for both cases and contacts has been distributed to all Medical Practitioners, Head Teachers and Health Visitors. Throughout this Department and the schools an effort is made to apply the instructions literally, but there are different views with regard to the seriousness of the various infectious diseases and the importance and length of period of exclusion particularly of contacts.

It is gratifying to know that this difficult problem is receiving attention from a committee of the Society of Medical Officers of Health, and that recommendations may soon be made which will enable the adoption of a standard practice throughout the country.

Parents Present at Inspection.

4,025, or 39.4%, of the parents were present at the examination of their children.

The percentage is low over all the routine examinations, but it is considerably higher for the examinations of entrants and junior age groups. Parents appear to make a real effort to be present or have some responsible representative, and it is highly desirable that they should. The information they can give may greatly help the medical examiner, and the advice and health hints they may receive considerably enhance the value of the whole school medical service.

6.—The Physical Condition of the School Children.

Children examined at systematic examinations:—

Ages,	Infants (5 Yrs.)	Juniors (7 Yrs.)	Seniors (11-12 Yrs.)	Leavers (13-14 Yrs.)	Post-Primary (16 Yrs.)	Totals
Boys	1,200	1,325	1,198	1,144	274	5,141
Girls	1,236	1,332	1,236	1,109	147	5,060
Totals	2,436	2,657	2,434	2,253	421	10,201

In addition to the above, boys and girls were presented by the teachers for special or non-routine examinations to the number of 1,193 and the following defects were found:—

Conditions of the Head—Vermin,	10
Nits,	4
Other Conditions, ...	6

Conditions of the Body—Vermin,	—
Other Conditions, ...	23
Diseases of the Tonsils,	14
Defective Vision,	38
Diseases of the Eyes,	8
Diseases of the Ears,	11
General Conditions (unclassified),	1,079
	<hr/>
	1,193

Number of Notifications of Defects to Parents.

Parents were notified of conditions found at the systematic medical examinations of their children as follows :—

Presence of Nits,	201
(Card of instructions)	
Verminous Head,	20
Verminous Body,	4
General Conditions,	493
(Including enlarged tonsils, unhealthy dental caries, etc.)	
Second notices of the same defect,	5
Defective vision,	572
	<hr/>
Total, ...	1,295

Defects discovered at systematic examinations are detailed at the end of this report.

Clothing and Footgear.

Condition of the children in respect of clothing and footgear :—

			Clothing		Footgear	
			Insufficient	In need of repair	Dirty	Unsatisfactory
No.	...	1	19	12	9	1
Per cent.	—		0.2	0.1	0.1	—

These percentages show an improvement, but with regard to footgear there has not been taken into account the number of children who wore " sand-shoes " at the time of medical examination. This form of footgear has become increasingly popular and is most unsatisfactory for continual wear in a climate such as ours.

Heights and Weights.

Comparative tables of average heights and weights for the first period of medical inspection in Dundee and the period 1926-37 were published in last year's report.

The figures during the past year have been used only to give a rough indication of the nutritional state.

Cleanliness of Head and Body.

	Head			Body		Vermin
	Dirty	Nits	Verminous	Dirty	Verminous	Marked
No.	22	520	35	9	3	113
Per cent.,	0.2	5.1	0.3	0.1	—	1.1

The campaign against dirt and vermin is tedious and the results disappointing although an obvious effort is made to have most of the children clean as to head, body and clothing when they are presented for systematic medical examination. The presence of vermin in the hair appears to be accepted as inevitable and with perfect complacency by parents who are themselves and whose children are otherwise clean. In spite of all the advice and teaching, a remarkable amount of ignorance prevails as to the best methods of cleaning heads.

Condition of the Skin.

	Ringworm		Impetigo		Favus	Scabies	Other Diseases (Not classified)
	Head	Body	Head	Body			
No.	1	2	97	93	2	9	129
Per cent.,	—	—	0.9	0.9	—	0.1	1.2

The figures for Ringworm and Scabies are the same as last year, but those for Impetigo are reduced by half.

Nutrition.

	Good	Average	Bad	Very Bad
1937-38 No.	3,120	6,170	809	102
1937-38 Per cent.,	30.5	60.5	8	1
1932-33 Per cent.,	26	65	8	1
1927-28 Per cent.,	31	62	4	—

Teeth.

	Sound	Dentures	1-4 Decayed	5 or More Decayed	Oral Sepsis
No.	2,047		5,658	2,496	433
Per cent.,	20		55.6	24.4	4.2

These percentages are a slight improvement on those for the previous year. The figures are based only upon the examination of the mouth in the course of systematic medical examination. The results of the routine dental inspection of school children will be found in the joint report of the Dental Officers appended hereto.

The scope of our dental service at present includes only the routine dental inspection of the 6-8 years old group and attention is directed to the first and second permanent molars. Conservative treatment is advised wherever possible and is offered by our service to necessitous cases. The service requires considerable development in order to deal adequately with the conditions indicated by the figures above, which speak for themselves of a great danger to the health of our school population now and in later life.

Nose and Throat.

	Catarrh	Nose Obstruction	Other Diseases (Not Classified)
No.	660	18	7
Per cent.,	6.5	0.2	—

Throat.

	Tonsils Enlarged		Adenoids	Other Diseases	Mouth
	Slightly	Markedly	Probably Present	(Not classified)	Breather
No.	1,265	315	257	42	18
Per cent.,	12.4	3	2.5	0.4	0.2
					3.6

All the above percentages show some improvement over those for the previous year.

External Eye Disease.

	Strabismus	Blepharitis
No.,	352	256
Per cent.,	3.5	2.5

The figures relating to other external eye diseases will be found in the appendix.

The percentage of cases of strabismus compares with 4% during the previous year.

The establishment of an orthoptic clinic has unfortunately been delayed on account of our inability to obtain the services of a trained worker. There is reason to believe that it may be possible to start the clinic within the next six months.

The natural dislike of children to the wearing of glasses seems to be somewhat less strong, but all too often it is necessary to combat the indifference of parents to the importance of the correction of vision defects in many cases accompanied by squinting.

Visual Acuity.

	Good	Fair	Bad
No.	5,876	1108	781
Per cent.,	75.1	14.3	10.6

Reliable results are difficult to obtain in the case of school entrants, and so the above figures do not include the entrants examined systematically.

The services of the part time Ophthalmic Surgeon whose detailed report is appended hereto, have now been made available according to the demand, and a considerably greater volume of work has been carried out. There has been a marked improvement in the number of appointments kept for refractions and specialist examinations.

Ears and Hearing.

	Ears			Hearing	
	Otorrhœa	Wax	Other Diseases	Slightly Deaf	Markedly Deaf
No.	111	243	14	64	1
Per cent.,	1	2.4	0.1	0.6	—

With regard to defective hearing, there is no doubt that the rough-and-ready methods employed at systematic medical examinations give no true indication of the prevalence of a degree of impairment which prevents children deriving full benefit from the education in an ordinary school. Some simple scientific test, e.g., the Gramophone Audiometer must be employed by which twenty or more children can be tested at one time with the necessary accuracy.

Such testing would reveal cases in which impaired hearing is the unsuspected cause of apparent backwardness or stupidity and enable the placing of such children in a favourable position in class, in a special class, or in the appropriate special school.

When such an instrument is installed an effort will be made to investigate systematically the hearing of all the pupils who might be suspected of suffering from any impairment—including all backward children and those who have suffered at any time from ear disease.

Speech.

Defective Articulation Stammering

No.	58	26
Per cent.,	0.6	0.2

The numbers of speech defects which constitute an embarrassment and a handicap to the school children affected are so great as to justify the adoption of special remedial measures.

In May, 1938, Head Teachers were asked to submit the names of all their pupils suffering from "major" speech defects. No fewer than 362 names were submitted, but the numbers are likely to be unduly high because of the various opinions as to what constitutes a "major" defect. All these cases will require to be examined and treated according to their individual requirements.

The most useful centre at present for the treatment of bad cases is the Special School for the Deaf where the teachers are to some extent specialists in speech training. One class in that school has been made up almost entirely of such cases. The accommodation is fully occupied and likely to be severely taxed in the near future so that some new provision must be made for the cases of speech defects.

The situation appears to call for the appointment of a full-time speech therapist who would conduct special classes for speech training at three or possibly four suitable centres.

Mental Condition.

Thirty children (0.3 per cent.) were classified as mentally dull or backward, and all were nominated for a more detailed examination.

Heart and Circulation.

	Organic Disease		Functional Conditions	Anæmia
	Congenital	Acquired		
No.	7	41	52	613
Per cent.,	—	0.4	0.5	6

The percentages show an improvement over those for the past five years.

Lungs.

263 cases of bronchitis were found, constituting 2.6% of the children examined, and 33 cases of doubtful tuberculosis, equal to 0.3%. These figures are lower this year, but they do not convey the striking impression obtained of the prevalence of respiratory ailments amongst the rather poorly nourished children.

Nervous System.

Only one case of epilepsy was discovered. There were 10 cases of Chorea (0.1%) as compared with only 6 in the previous year. All the figures under this heading show a slight increase.

Tuberculosis.

Fourteen children were found to be suffering from non-pulmonary tuberculosis — 5 glandular, 3 of bones and joints, and 6 abdominal. No cases of tuberculosis of the skin or other forms of tuberculosis were discovered at the systematic examinations.

Rickets.

128 children or 1.2% were found to be suffering from slight rickets, and 31 or 0.3% from marked rickets. These figures are the best for some years.

Deformities.

Congenital deformities were found in 21 children (0.2%) and acquired (non-rachitic) deformities in 10 children (0.1%). The commonest deformities found were those due to rickets in 133 children (1.3%).

In the final classification of the children examined as fit or defective the numbers are as follows:—

	Boys		Girls		Boys & Girls	
	Fit	Defective	Fit	Defective	Fit	Defective
1937-38 No.	4,653	488	4,544	516	9,197	1,004
1937-38 Per cent.,	90.5	9.5	89.8	10.2	90.2	9.8
1932-33 Per cent.	91	9	90	10	90	10
1927-28 Per cent.,	89	11	88	12	88	12

7.—Special Schools.

Physically Defective Children.

The centre for the education and care of children suffering from physical defects apart from impairment of hearing or vision is Fairmuir Special School, which is erected on the "open air" principle and is delightfully situated on the Kingsway. There is accommodation for eight classes of physical defectives, and it is taxed to the utmost. A considerable number of most deserving cases await admission.

The number of physically defective children on the register is as follows :—

	Boys	Girls	Total
At 31st July, 1937,	121	105	226
Admitted during the session,	—	—	49
Discharged to ordinary schools, over age or exempted,	—	—	43
At 31st July, 1938,	123	109	232

With the exception of deaf and partially blind children for whom other special provision is made, this school deals with all types of physically defective children who are able to attend to their own personal needs.

The numbers of children who were recommended for admission during the past session were as follows :—

Tuberculosis (non-pulmonary),	14
Anæmia and Debility,	5
Chest Conditions—Asthma, Chronic Bron- chitis and Unresolved Pneumonia, ...	5
Rheumatism,	6
Chorea,	6
Congenital Cardiac Conditions,	5
Epilepsy,	2
Deformities—Congenital,	9
Acquired,	2
Chronic Nephritis,	1
Transplantation of Ureters,	1
Neurosis,	1
Chronic Intestinal Indigestion, ...	1

58

The prejudice against a special school is very deep-rooted, and exists in the minds of many people who ought to be better informed. The Head Teacher and his staff welcome visitors, and are proud to take any opportunity of displaying the facilities and the fine work which is done in the interests of these less fortunate children.

Teachers, doctors and parents who are interested are invited to obtain first-hand knowledge of the school and its work.

The Artificial Sunlight Clinic was conducted in school as usual, and the children showed marked benefit.

48 boys received a total of 3,282 treatments; and
33 girls received a total of 2,582 treatments.

One member of the specialist staff of the Director of Physical Education was constantly on duty giving massage or remedial exercises to small groups of children for whom such treatment was prescribed.

Sidlaw Special School.

Children suffering from tuberculosis and resident for some months at Sidlaw Sanatorium, Auchterhouse, attend this special school at the discretion of the Medical Officer.

The numbers vary considerably from week to week, but about 25 children are usually under the charge of the only teacher. The work is very valuable from both therapeutic and educational points of view.

Mentally Defective Children.

These children are also accommodated at Fairmuir Special School in five classes.

The numbers are as follows :—

	Boys	Girls	Total
On the register on 31st July, 1937, ...	48	39	87
Admitted during the session,	—	—	25
Reported to Public Assistance Com- mittee as ineducable,	—	3	3
Left (over age or exempted),	—	—	11
On the register on 31st July, 1938, ...	58	40	98

The numbers in this department are not so great in relation to the accommodation, but the lowest class is always filled to capacity. As this is the class in which the foundations of training are laid and the children are taught to feed and look after themselves, it forms a rather self-contained unit and requires more space than the other classes. Some steps will have to be taken to accomplish this in the near future.

The use of the term " Mentally Defective Children " receives strong criticism, and there is little doubt that it increases the administrative difficulties. Parents and others concerned do not realise that the term is a legal one and is used in the sense that the children are " educationally mentally deficient," although

many such children are capable of development into useful citizens. The term " Retarded " is much less open to objection and is in general use here except where the legal term is required.

In addition to 20 children recommended for and admitted to the Retarded side of Fairmuir Special School in the past session, the names of 138 boys and 84 girls were submitted by Head Teachers as requiring special investigation and treatment on account of mental retardation. These cases are now being examined and, although the investigation is not completed, sufficient evidence accumulates to show that a considerable number of dull or backward children in one or more subjects are struggling to keep abreast of the class work appropriate to their age and failing to do so. It appears that some provision in the nature of special classes may have to be made to assist these children.

After Care.

The names of all children leaving the Retarded side of Fairmuir Special School have been communicated to a voluntary After Care Committee of the Dundee Branch of the Association for Mental Welfare. The ladies of the committee do splendid work in assisting these children to find suitable employment, and in their own homes carry on suitable handicrafts, etc. Toc H provides a club room and workshop for the boys, which is greatly appreciated by those who take advantage of it on one evening each week.

Blind and Partially Blind Children.

These children have been received in the Special Sight Saving School in the premises and under the auspices of the Royal Dundee Institution for the Blind. Arrangements have been made for the taking over of this school by the Corporation as from 1st August, 1938. The present arrangements, however, as to premises and hostel accommodation for the cases for whom residence is necessary will be continued for the time being.

The numbers of children on the register are as follows:—

	Boys	Girls	Total
On 31st July, 1937,	22	13	35
Admitted during the session,	—	—	8
Discharged during the session,	—	—	9
On 31st July, 1938,	18	16	34

Of these children four are resident in the hostel.

Two only are almost, if not completely, blind.

The whole question of the future of this special school is at present under consideration, and certain changes may be advisable in order to develop this service more fully.

Deaf, Semi-Deaf and Deaf Mute Children.

The special school for these cases has accommodation for 60 pupils.

The numbers on the register are as follows :—

	Boys	Girls	Total
On 31st July, 1937,	31	28	59
Admitted during the session,	—	—	8
Discharged during the session,	—	—	6
On 31st July, 1938,	31	30	61

Approximately half of these children are totally deaf and 14 semi-deaf. Six have speech defect or retardation with some impairment of hearing, and 10 suffer only from speech defects.

The installation of an Audiometer will enable a more accurate estimate to be made of the degree of defect present.

8.—Arrangements for Physical Education.

Physical Exercises.—These are under the direction of Mr Forbes, Director of Physical Education, and his specialist staff, and in the Primary Schools are conducted for the most part by the class teachers.

This Department gladly acknowledges the willing co-operation of Mr Forbes and his staff in the treatment of any cases specially brought to his notice.

Physical training arrangements are made at present for children en masse, and it is hoped that it may be possible to have remedial classes set going in three or four suitable centres for the treatment in small groups of minor physical defects, e.g., postural defects and bad breathing habits, etc.

The teaching of Personal Hygiene is carried out by the class teachers.

9.—Arrangements for Feeding and Clothing of Children.

There has been no change in these arrangements during the past session.

Meals are prepared at the Central Cooking Depot, St Margaret's School Building, Ancrum Road, Lochee, and distributed to all the feeding centres with the exception of Fairmuir Special School, at which meals are prepared on the premises, and the Sight Saving School at which meals have been provided by arrangement with the Directors of the Royal Dundee Institution for the Blind.

At Fairmuir Special School the meals were provided at a cost to the parents of 1/- per week.

Milk is provided to school children in bottles each containing $\frac{1}{3}$ rd pint at a charge of $2\frac{1}{2}$ d per week except in necessitous cases, to whom the provision is made free on medical recommendation. 271 such recommendations were made by this department.

Average number of children participating in the scheme for the supply of milk was 9,451, or 35.2%.

During the forthcoming winter, arrangements will be made for taking the chill off the milk and so removing one strong objection of some children or their parents to this admirable scheme.

Boots were supplied to necessitous cases by the Education Committee through the staff of the Attendance Department.

10.—Arrangements for Medical Treatment.

The arrangements for medical treatment have been the same as during the past few years except that the facilities have been somewhat extended. It was possible to arrange that the district clinics remain open experimentally during the holiday periods, and the numbers of cases who attended for treatment showed that this is amply justified.

The exclusive use of an additional room at the Broughty Ferry Clinic premises obtained from 15th January, 1938, has enabled that district to be as well served in proportion to its needs as the other districts in the matter of treatment clinics. Since that date the clinic has been open on three afternoons each week, and the numbers attending show the development to be justified.

On account of congestion at the Central Clinic on the days when Infant Welfare and School Attendance Clinics were held concurrently the School Attendance Clinic here has been discontinued on Monday and Thursday afternoons.

The following is a summary of the work done :—

The Central Clinic, 1 Nelson Street—

Attendance and treatment clinics were conducted daily from 2—4 p.m., and during the year under consideration there was a total of 23,535 consultations, as follows :—

Head Teachers and Doctors referred,	13,700 cases
Attendance Officers referred,	1,149 cases
<hr/>	
Total, ...	14,849

These cases had consultations numbering,	22,117
Nurses referred children 2-5 years,	20 cases
Other children 2-5 years,	925 cases
<hr/>	
Total, ...	945

These pre-school children had consultations numbering,	1,418
<hr/>	
Total, ...	23,535

The number of pre-school children on whose behalf advice was sought is strikingly high, and the opportunity afforded of early detection of defects is of great value.

Of all the above cases 7,293 received treatment at this clinic. The number of attendances for treatment were as follows :—

Dental,	6,266
Skin Conditions,	10,380
Nose and Throat Conditions,	8,596
Eye Conditions,	10,524
General Conditions,	15,989
<hr/>	
Total, ...	51,755

The detailed reports of the Dental Officers, the Dermatologist, Ear, Nose and Throat Surgeon and the Ophthalmic Surgeon will be found appended to this report.

Applications for the provision of spectacles or financial assistance to provide them were made on behalf of 611 children.

Spectacles were provided free in	417 cases
At half-price in	73 cases
And at contract rates in	121 cases
	<hr/>
	611

At each of the four district clinics an attendance and treatment clinic was conducted on one afternoon each week, and in all but Broughty Ferry Clinic, which has been mentioned above, a nurse is in attendance daily for at least two hours for the treatment of minor ailments.

The following is a summary of the year's work:—

The District Clinics.

District Clinic	Cases		Children	
	Referred	Attendances	2-5 Years	Attendances
Isles Lane,	1,819	4,991	90	344
Lochee,	2,039	3,889	142	293
Ferry Road,	641	2,137	43	146
Broughty Ferry,	485	1,155	45	102
Totals, ...	4,984	12,172	320	885

The total attendances for treatments:—

District Clinic	Eye Conditions	Ear Conditions	General Conditions	Total
Isles Lane,	2,274	1,710	7,841	11,825
Lochee,	1,395	1,013	7,331	9,739
Ferry Road, ...	861	772	4,470	6,103
Broughty Ferry,	178	110	1,197	1,485
Totals, ...	4,708	3,605	20,839	29,152

Treatment of Scabies.

The more severe cases of scabies were referred to the Cleansing Station, Constable Street, for daily treatment. These cases are supervised from week to week, and the milder ones are treated at the various clinics.

At the Cleansing Station 276 cases received a total of 4,617 treatments, an average of just under 17 treatments or three weeks' attendance for each case.

Scabies infestation, so frequently chronic, presents a problem both medical and educational with which it is difficult to deal adequately. In spite of treatment prescribed for all the members of the household affected and the disinfection of clothing and bedding, the condition is difficult and slow to clear up, and relapses are common. Many cases do not co-operate well and attendances are irregular. Undoubtedly this is due in part to the fact that treatment is available at only one centre and considering the distances which must be travelled by many cases, e.g., from the Blackness and Hawkhill and the Lochee districts. In the case of a mother with four or more children walking is tedious, and transport is so expensive as to be beyond the means of most families affected.

Attention might be directed to the possibility of establishing another similar cleansing station in one of the Corporation wash-house premises suitably situated to serve the Western and Lochee districts.

Artificial Sunlight Treatment.

Clinics for Artificial Sunlight Treatment were held at the Central Clinic on seven half-days each week, and at Lochee Clinic on two half-days each week, and children of all ages attended both centres. The conditions on account of which most of the pre-school and school children were referred were rickets, anæmia and debility and chronic bronchitis, and the results of the treatment are very satisfactory in the majority of cases.

The numbers with which this report is concerned are as follows :—

Cases	Central Clinic	Lochee Clinic	Total	Attendances
Boys 2-5 years,	41	9	50	1,035
Boys over 5 years, ...	103	37	140	4,384
Girls 2-5 years,	27	9	36	1,475
Girls over 5 years, ...	74	32	106	4,411

Holiday Homes and Camps.

The number of children medically examined and passed for admission to holiday homes during the past session was 1,374.

St Andrews, Auchterhouse, Comerton and St Teresa's, Aberdour holiday homes have all continued their splendid work, and the results in the renewed health and vigour of the children who are sent away even for a short period are most gratifying.

The facilities at Aberdour have been extended in the past year to allow of Roman Catholic children enjoying a fortnight's holiday during the school session instead of during the summer holiday weeks only.

The same arrangements as were detailed in last year's report with regard to Holiday Camps at Edzell and Saline and the Trek Camps established by the Educational Institute of Scotland have been continued in the year under report under the auspices of the Committee of the Dundee School Children's Holiday Camp Fund.

Edzell and Saline have been attended by some 220 girls and boys and the Trek Camps by some 65 older girls and boys.

The voluntary workers in charge of the various camps are to be warmly congratulated on their work, of which there is such obvious appreciation on the part of the children and their parents.

Experience shows that a two weeks' holiday is strikingly more beneficial than one of a week's duration. Children generally take a few days to settle down in the new surroundings, to lose the first pangs of homesickness and to enjoy the new and in most cases fuller diet, and improvement in health becomes apparent only towards the end of the first week. This improvement requires to be added to and consolidated and so, whenever possible, a fortnight should be regarded as the minimum period of stay.

The Child Guidance Clinic.

The Child Guidance Clinic has continued its good work throughout the past session and grateful acknowledgment is made of the ready co-operation in dealing with problem cases of various kinds.

52 cases had been carried forward from the previous year, 73 new cases were referred in the year under report, and 2 old cases were re-opened.

32 cases were closed, and at the end of the year there were 66 active cases in course of treatment.

The Clinic has become more firmly established as an invaluable adjunct to our work, and considerable experience has been gained as a result of which it was possible to circulate to Head Teachers a letter describing the types of cases with which the Clinic is prepared to deal and the machinery of referral. It was asked that Head Teachers refer cases through this department so that the medical staff might carry out a preliminary examination and forward only the suitable cases.

This department referred 6 cases in the past year, and the Deputy Medical Officer of Health (Pre-School and School Medical Services) attended on 11 occasions to consult with regard to 25 cases.

In closing this report I wish to take this opportunity of thanking my colleagues and all the members of the staff for their kind and helpful co-operation in the work of the department throughout the past year.

DENTAL OFFICERS' REPORT, 1937-38

Child Welfare Dental Service.

(a) Routine School Inspection (Children of 6-8 years).

Schools visited :—

Rosebank, St Mary's D., Hill Street, Blackness,
Rockwell (Prim.), Mitchell Street, Ancrum Road, Liff
Road, St Mary's L., Victoria Road.

Wallacetown, Butterburn, St Peter and Paul's, Ann
Street, Dens Road, Clepington, Downfield.

Total Children Inspected,	3,560
Number Selected for Treatment,	1,852
Number of Treatment Acceptances,	955
Average Acceptance Rate for Treatment,	51%

Treatment Acceptance Rates for Individual Schools :—

	Per Cent.
Rosebank,	72.7
Dens Road,	65
St Mary's D.,	64.1
Clepington,	57
St Peter and Paul,	55
Ann Street,	52
Victoria Road,	51.3
Mitchell Street,	50
Wallacetown,	49
Downfield,	44
Hill Street,	42.1
Butterburn,	38
Blackness,	36.8
Rockwell (Prim.),	36.8
St Mary's, L.,	34.5
Liff Road,	34.4
Ancrum Road,	33.7

(b) Dental Treatment Clinic.

I.—School Children.

Number of Boys and Girls attended

Boys,	2,035
Girls	2,094
	<hr/>
Total, ...	4,129
	<hr/>
Total Attendances,	6,266
Parents Present,	3,338

II.—Pre-School Children.

Number Attended,	191
------------------------	-----

Numerical Table of Operations—

Fillings—Permanent Teeth, ...	3,083
Temporary Teeth, ...	55
Extractions—Permanent Teeth, ...	450
Temporary Teeth, ...	2,988
Dressings and Applications, ...	2,516
Scalings and Brushings,	85
Anæsthetics—Local,	1,976
General,	348
Other Operations,	9
Advice given in	257 cases

About 50 cases of irregularities of the teeth have been selected and referred to the Dental Hospital for instructional purposes and treatment by means of appliances.

Observations.

Despite the distribution among parents of oral health pamphlets wherein it is urged that their children should return after dental treatment for re-inspection in six months' time, there has been a poor response to this request. The occurrence of dental pain in too many cases is the factor which decides a visit to the clinic.

ERNEST E. CASSADAY, M.B., Ch.B., L.D.S., D.P.H.

MARGARET E. L. RITCHIE, L.D.S.(St And.).

OPHTHALMIC SPECIALIST'S REPORT.

1937-1938.

51 ,

The following is a detailed list of 2,264 attendances at the Eye Clinic during the session 1937-38, showing an increase of 504 since last session.

Refractions	...	...	...	...	1415
Corneal Ulcers	...	...	..	...	465
Interstitial Keratitis	...	..	...	...	106
Conjunctivitis	...	...	...	...	40
Blepharitis	...	...	...	..	63
Burn	...	....	...	...	2
Trachoma...	...	...	...	...	31
Dacryocystitis	...	...	...	...	2
Wound of Eyeball	...	...	...	...	19
Exophthalmos	...	...	...	...	2
Congenital Cataract	...	...	...	...	12
Sebaceous Cyst	...	...	...	...	7
Hordeolum	...	...	...	...	11
Follicular Conjunctivitis			...	...	18
Albinism	...	...	...	...	2
Retinitis Pigmentosa	...	...	...	...	1
Traumatic Cataract	.	....	....	...	3
Buphthalmos	...	...	...	...	1
Chalazion	...	...	...	...	24
Corneal Nebula	...	...	...	....	18
Lid Abscess	...	....	...	...	12
Optic Atrophy	....	....	...	...	2
Admissions to Sight Saving School				...	8
Total	...	...	...	...	2,264

My thanks are due to the full-time Medical Staff and Clinic Nurses for their invaluable assistance during the past session.

(Signed) ALLISTER M. MACGILLIVRAY,
M.D., D.O.M.S., F.R.S.E.

EAR, NOSE, AND THROAT DEPARTMENT.

1937-1938.

New Case seen	...	...	...	356
Diseases of the Ear—				
Furuncle	...	...	...	2
Diffuse External Otitis	...	...	...	2
Acute Suppurative Otitis Media	...	...	...	15
Chronic Suppurative Otitis Media	...	...	...	25
Mastoid Complications	...	...	...	3
Wax	...	...	...	4
Catarrhal Otitis Media	...	...	...	6
Foreign Body in Ear	...	...	...	1
Deafness—nerve	...	...	...	1
Diseases of Nose and Throat—				
Disease of the Nasal Vestibula	...	...	...	1
Deviation of the Nasal Septum	...	...	...	8
Hypertrophic Rhinitis	...	...	...	2
Atrophic Rhinitis	...	...	...	4
Ozoena	...	...	...	4
Nasal Polypus	...	...	...	1
Vasomotor Rhinitis	...	...	...	7
Adenoids	...	...	...	222
Enlarged Tonsils	...	...	...	284
Chronic Tonsillitis	...	...	...	7
Acute Tonsillitis	...	...	...	9
Granular Pharyngitis	...	...	...	1
Cervical Adenitis	...	...	...	36
Epistaxis	...	...	...	5
Diseases of the Larynx	...	...	...	5
Trauma to the Nose	...	...	...	1
Nasal Allergy	...	...	...	1
Spurs to the right	...	...	...	1
Fibroma	...	...	...	1
Inflamed Gums	...	...	...	1
Septic Mouth	...	...	...	1
Operations Performed—				
Tonsils and Adenoids	...	...	...	150
Mastoid (Radical)	...	...	...	2
Septum	...	...	...	2

For X-Ray	3
Refer Dentist	5
For Investigation Oesophagus and Swallowing	1
Negative examinations	13
Old Patients examined	145
Total number of cases examined ...	501
Average number of cases examined daily ...	12

(Signed) M. J. GIBSON,
M.B., F.R.C.S.E.

X-RAY SPECIALIST'S REPORT FOR 1937-38.

DURING the past year 81 children have made 351 attendances at this Department. The following table shows the diseases from which they suffered :—

Ringworm of the scalp :—				
Microsporon (a) ... ..	...	...	...	2
Trichophyton ... ..	...	...	...	3
Kerion ... ..	...	...	...	1
Ringworm of the body ... ..	...	...	...	3
Favus of the scalp ....	...	...	...	1
Alopecia areata ....	...	...	...	6
Streptococcal dermatitis ... ..	...	...	...	11
Eczema and dermatitis ... ..	...	...	...	11
Psoriasis ....	...	...	...	6
Other diseases of the skin ... ..	...	...	...	38
				—
				81
				—

(a) Includes 2 cases from Angus.

X-ray epilation continues to be carried out at my home pending the installation of new apparatus.

I have to thank Dr Cuthbert for his friendly help and co-operation which have continued the pleasure of my work and Nurse Miller for her much valued assistance.

(Signed) JOHN KINNEAR,
M.D., M.R.C.P., Ed

APPENDIX.

The Physical Condition of the School Children.

The following table gives detailed results of the findings at systematic medical examinations:—

	Total No. at all ages	Boys	Girls	Total 1937-38	Total 1936-37
Routine Examinations,	10,201	5,141	5,060	10,201	10,035
Parents present,	4,025	—	—	39.4%	53.4%

Percentages of Children Suffering from Defects.

Clothing :

Insufficient,	1	—	—	—	—
In need of repair,	19	.3	—	.2	.3
Dirty,	12	.2	—	.1	.2

Footgear :

Insufficient,	9	.1	—	.1	.2
Bare Foot,	1	—	—	—	—

Nutrition :

Above average,	3,120	30.6	30.5	30.5	33.0
Average,	6,170	61.9	58.9	60.5	58.0
Below average,	809	6.7	9.2	8.0	3.0
Very bad,	102	.8	1.2	1.0	1.0

Cleanliness :—

Head—

Dirty,	22	—	.4	.2	—
Vermin,	35	—	.6	.3	.4
Nits,	520	.6	9.6	5.1	5.0
Ringworm,	1	—	—	—	—
Impetigo,	97	.9	1.0	.9	2.0
Favus,	2	—	—	—	—
Other Diseases, ...	52	.6	.4	.5	1.0

Body—

Dirty,	9	—	.1	.1	—
Vermin,	3	—	—	—	.1
Ringworm,	2	—	—	—	—
Impetigo,	93	.8	1.0	.9	2.0
Scabies,	9	—	.1	.1	—
Other diseases,	77	.8	.7	.7	1.0
Vermin marked, ...	113	1.0	1.0	1.1	2.0

Teeth :

Sound Dentures,	2,047	20.1	20.0	20.0	10.0
1-4 Decayed,	5,658	54.8	52.2	55.6	54.0
5 or More Decayed,	2,496	25.1	23.8	24.4	26.0
Oral Sepsis,	433	4.4	4.0	4.2	5.0

Total No. at
all ages **Boys** **Girls** **Total** **Total**
1937-38 **1936-37**
Percentages of Children Suffering from
Defects.

Nose :

Catarrh,	660	6.7	6.2	6.5	8.0
Obstruction,	18	.3	—	.2	.4
Other Diseases,	7	—	—	—	.2

Throat :**Tonsils—**

Slight,	1,265	11.8	13.0	12.4	14.0
Marked,	315	2.9	3.3	3.0	4.0

Adenoids—

Probably Present, ...	257	2.5	2.5	2.5	3.0
Present,	42	.4	.3	.4	1.0
Other Diseases,	18	.1	.2	.2	1.0

Glands :**Submaxillary—**

Enlarged,	1,178	12.4	10.7	11.5	15.0
Markedly,	9	.1	—	.1	.2
Suppurating,	1	—	—	—	—
Cicatrices,	64	.5	.7	.6	1.0

Cervical—

Enlarged,	557	5.8	5.0	5.4	8.0
Markedly,	5	—	—	—	1
Suppurating,	—	—	—	—	—
Cicatrices,	67	.5	.8	.6	1.0

Mouth Breather,	369	4.1	3.1	3.6	5.0
-----------------------	-----	-----	-----	-----	-----

External Eye Disease :

Strabismus,	352	3.3	3.5	3.5	4.0
Nystagmus,	8	—	.1	—	—
Blepharitis,	256	2.5	2.5	2.5	3.0
Conjunctivitis,	104	1.0	1.0	1.0	2.0
Corneal Nebulae,	14	.1	.2	.1	.1
Corneal Ulcer,	—	—	—	—	—
Other Diseases,	39	.3	.5	.4	.5

+Vision :

6/6,	5,876	76.4	75.0	75.1	76.0
6/9—6/12,	1,108	14.0	14.5	14.3	13.0
6/18—worse,	781	9.6	10.5	10.6	11.0

Ears :

Otorrhœa,	111	1.3	.8	1.0	.9
Wax,	243	2.5	2.0	2.4	3.0
Other Diseases,	14	.1	.1	.1	1

	Total No. at all ages	Boys	Girls	Total 1937-38	Total 1936-37
Percentages of Children Suffering from Defects.					
Hearing :					
Somewhat Deaf,	64	.7	.5	.6	1.0
Markedly Deaf,	1	—	—	—	—
Speech :					
Defective,	58	.7	.3	.6	.7
Stammerer,	26	.4	.1	.2	.3
Mental :					
Dull and Backward, ...	30	.4	.2	.3	.2
Mentally Defective, ...	—	—	—	—	—
Heart :					
Organic—					
Congenital,	7	—	.1	—	—
Acquired,	41	.3	.5	.4	.3
Functional,	52	.3	.7	.5	.6
Anæmia,	613	5.8	6.2	6.0	9.0
Lungs :					
Bronchitis,	263	2.9	2.3	2.6	4.0
T.B.,	7	—	.1	—	—
?T.B.,	33	.2	.4	.3	.4
Other Diseases,	19	.3	.1	.2	.4
Nervous System :					
Epilepsy,	1	—	—	—	—
Chorea,	10	.1	.1	.1	—
Inf. Paralysis,	5	—	—	—	—
Other Disease,	8	—	.1	—	—
Tuberculosis :					
Glandular,	5	—	—	—	—
Bones and Joints,	3	—	—	—	.1
Abdominal,	6	—	—	—	—
Skin,	—	—	—	—	—
Other Forms,	—	—	—	—	—
Rickets :					
Slight,	128	1.8	.7	1.2	2.0
Marked,	31	.3	.3	.3	.3
Deformities :					
Bow Leg,	29	.4	.1	.3	.2
Knock Knee,	16	.2	.1	.1	.3
Cleft Palate,	1	—	—	—	—
Spinal Curvature,	14	.1	.1	.1	—
Ricketty Chest,	88	1.0	.6	.9	1.0
Wry Neck,	5	—	—	—	.1
Talipes,	6	—	—	—	—
Congenital,	9	—	.1	.1	.1
Acquired (non-rachitic),	10	.1	—	.1	.1
Other Diseases :	55	.5	.6	.5	.6
Result .					
Fit,	9,197	90.5	89.8	90.2	89.0
Defective,	1,004	9.5	10.2	9.8	12.0

†Entrants not tested and are not included in these numbers.

VETERINARY SERVICES.

**Report by Andrew Spreull, M.R.C.V.S., on Veterinary Services
performed from 1st January to 31st December, 1937.**

(1) Conditions and Cleanliness of Cattle.

The general conditions under which cattle are kept are good. A few of the older premises do not come up to present standards. There has been more attention given to the cleanliness of cattle especially so with regard to Milk Cows.

- (a) The nature of fodder and diet has been of a high standard and quality throughout the year.
- (b) Number of Diseased Cows found totalled 51, which included 36 cases of Mastitis, 12 cases of Tuberculosis, 2 cases affected with Warbles, and 1 case of Enteritis.
- (c) The Milk from the above diseased animals was destroyed in all cases, with the exception of the 2 animals affected with Warbles which were speedily cured.

(2) Inspection of Cattle.

In January there were 26 Registered Dairy Premises in which Milk was produced within the City Boundaries. During the course of the year 2 Dairies have given up milk production.

	Average	Number of	Annual
	Number of Cows	Cows Inspected	Frequency of Inspection
(a) Registered Dairies, ...	469	2,927	Every Two Months.
(b) Exempted Premises, ...	6	26	Every Six Months.

(3) Bovine Tuberculosis.

- (a) Total number of cows found Tuberculous on clinical examination, and slaughtered under the Tuberculosis Order of 1925,

- (b) Total number of cows found Tuberculous after Tuberculin Test, and slaughtered under the Tuberculosis Order of 1925, 5

The average value of these animals was slightly in excess of £8 per head.

- (c) Total number of Cows to which the Tuberculin Test was applied under Section 22 of the Milk and Dairies (Scotland) Act, 1914, was 92. 11 reacted to the prescribed test and were removed from the herds.

Information with regard to Certified and Tubercle free herds was furnished to the Department of Health for Scotland on the 10th January, 1938, of which the following is a copy :—

- (d) Number of Dairies holding graded milk licences in respect of tubercle-free herds :—

Name and Address.	Average Number of Herds.	Estimated Number of Gallons Produced per Annum.
CERTIFIED. Messrs. Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	27	18,469
CERTIFIED. Messrs G. J. Bisset & Sons, 12 Holly Road, Broughty Ferry.	5	4,629.5

- (b) There are no other Dairies known to have Tubercle-free herds.
- (c) No Dairies hold licences for the production of Standard Milk.

(4) Miscellaneous.

- (a) All Milk Samples taken are examined at the University College. Milk Samples were taken from 185 Cows. One was postive after being inoculated into a guinea pig, but

the offending animal was seized and slaughtered under the Tuberculosis Order of 1925 before the result of this inoculation was available.

- (b) The regulations under Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914, are being duly complied with in this district.

Cattle Market.

The Cattle Market was visited every Market day and all animals exposed for sale were inspected for the purpose of preventing animals being sold which showed obvious symptoms of disease and which were ultimately intended for human food.

During the year 3 Cows and 1 Bullock, showing obvious signs of disease, were seized. 1 Cow and 1 Bullock were suffering from advanced Tuberculosis, 1 Cow from Tuberculosis and Redwater, and 1 Cow from advanced Tuberculosis with a severe infestation of Warbles. This latter case was notified to the County Authority where the animal had been kept.

Six owners were warned for exposing for sale animals affected with Warbles.

Anthrax.

There were two outbreaks of this disease. In each case one Cow was affected belonging to the same owner and having been kept in the same field. This pasture is not now being used as a grazing field.

One other case reported as suspected proved after microscopical examinations to be negative.

Swine Fever.

One outbreak occurred involving a herd of 69 Pigs. These were all dealt with under the regulations, and the premises have now been clear of infection since August.

Two cases reported as suspected proved negative.

Imported Animals.

Under the importation of Animals Act, 1922, 1194 Cattle were admitted into the City accompanied by licence. These were all inspected and found to be healthy animals.

Of the above number of imported animals, 114 were re-licensed from the Cattle Market.

Transit of Animals.

All trucks and vehicles used for the conveyance of live stock to a market must be washed, scrubbed and thoroughly disinfected.

During the year 2,332 vehicles and 155 crates were washed, scrubbed and disinfected at the Cattle Market. All owners have complied with the necessary regulations.

Ten visits were made to the various railway stations, where it was observed that the railway authorities were adhering to this order.

Foreign Hay and Straw

Fourteen visits were made to vessels arriving at the Harbour with cargoes of Hay, Straw and Esparto Grass. These were all found in order.

Meat Inspection.

6,963 Carcases have been wholly or partially condemned during the year, of which 3,365 were Tuberculous.

Compared with 1936, this is an increase of 141 Carcases, but a slight decrease of 8 Tuberculous Carcases.

The duties of detaining and inspecting Meat within the Slaughterhouse have been increasing over a period of many years. When the Agricultural Act, 1937, comes into force one can foresee further increases in these duties.

Farms.

During the year 120 visits were made to Gourdie and White-lawstone Farms. A considerable number of these visits were made during the first few months of the year before the appointment of the present Manager.

At the request of the Department of Agriculture for Scotland, I performed two Tests for Tuberculosis on all the Bovine Animals in the herd. On each occasion all the animals successfully passed the prescribed test (a total of 409 head). The herd is now licensed as an attested herd until August, 1938.

Two outbreaks of Mastitis, an infectious disease of the udder, affected a considerable number of the milking herd. All precautions were taken on both occasions, but the first outbreak in March caused considerable losses, affecting about 20 Cows. The second attack during the summer, involving 7 Cows, did not cause any serious loss.

Periodic Milk Samples were taken immediately after milking, which showed that the milk was of a high standard and quality, no trace of any infectious or contagious disease was found, and the milk counts were satisfactory.

There was an outbreak of Swine Erysipelas involving all the pigs at Whitelawstone. 107 serum injections were given, which checked the disease.

Tuberculosis was also found to be present among the Pigs. The herd of pigs have now been disposed of on account of disease and the state of the premises.

Lambing sickness occurred in the Sheep, involving considerable losses. Unfortunately this has been a bad year for this complaint.

Other ailments requiring attention in the herd included:—

Deranged Digestion	21 cases
Retention of Afterbirth	14 cases
Milk Fever	6 cases

A few animals from the milking herd died or were slaughtered on account of disease; the main causes being Mastitis, Septicaemia, Toxaemia, and one case of a retained foreign body. One cow died from Anthrax, this being dealt with by the County Authorities.

The horses did not require much attention. There were 4 mild cases of Colic and 2 of Lameness. One horse at Whitelawstone had to be shot on account of a bad infection of grease and old age. The two Donkeys were shot, one suffering from chronic incurable lameness; the other was extremely old.

One Horse was purchased which has proved satisfactory.

Corporation Horses.

Cleansing Department.—76 visits were made examining and treating the Horses and Ponies in the stables at East Dock Street and Lochee, also 4 visits to Gourdie examining 2 Ponies which were at grass.

Major operations were performed on 2 Ponies and 1 Horse, in each case for diseased conditions of the legs. These have all been satisfactory.

The animals have required more attention from me than the average stud of horses should need. Most of the ailments have been lameness associated with strains and bony malformation. These conditions are generally caused by concussion such as is occasioned by work on hard streets and by over exertion. The average age of the animals (about 12 years) is certainly not in their favour.

Works Department.—20 visits were made examining and treating the Horses in Miln Street Stables.

One major operation was performed for Angleberries and grease—this condition recurred and the animal was sold.

One other Horse was sold as it was unfit for the work.

Ashludie Sanatorium.

Swine Fever, a scheduled disease, occurred in the Herd of Pigs, necessitating their disposal. Since then the Pigs have been healthy.

During the year 12 visits were made in connection with the outbreak of Swine Fever and the purchase of new animals.

East House.

Nineteen visits attending and treating the Pigs consisted mostly of castrating the young piglets. This is a healthy herd of Pigs.

Two visits to the Horse which had a minor skin abrasion.

Caird Park.

One routine visit to this animal, which has been healthy throughout the year.

Police.

Several Ponies were examined for use on Broughty Ferry sands.

Two cases of alleged cruelty were inspected necessitating one appearance at Sheriff Court.

Public Assistance Department.

Examining and arranging for purchase of Pony and Float.

Transport Department.

Examining and reporting on Horse alleged to have been involved in accident.

SANITARY DEPARTMENT.

Report by Mr ALEX. A. RUSSELL, Chief Sanitary Inspector.

SANITARY DEPARTMENT,
WEST BELL STREET,
DUNDEE, 15th June, 1938.

To the Honourable—

The Department of Health for Scotland; and
the Lord Provost, Magistrates, and Councillors—
the Local Authority of the City of Dundee.

MADAM AND GENTLEMEN,

I have the honour to submit my Annual Report showing the work of the Sanitary Department during the year 1937. The Report has been prepared in accordance with the circular of the Department of Health for Scotland dated 23rd December, 1937.

Introductory.

Towards the end of last century when the work of the Sanitary Inspector was definitely recognised as an integral part of the Municipal Services and for a number of years thereafter, his duties were, more or less, confined to the day-by-day search for, and removal of, what was generally termed "common nuisances"; and this corresponded in character to the prevailing conception of the principles and practice of hygiene then in vogue of simply confining, or endeavouring to confine, outbreaks of epidemic disease within reasonable bounds, and applying curative measures to the immediate sufferers.

Such elementary part of the Sanitary Inspector's work was, and still is, of incalculable value; but within recent years there have been rapid developments in the Science of Prophylactics which are changing nearly all forms of public health and sanitary administration and practice.

To-day the old axiom, "Prevention is better than cure," is the *Modus Operandi* of the Public Health and Sanitary Services.

Naturally, our field of operations has been considerably widened, and constant research is ever producing new ideas and methods, demanding from those to whom the administration of the many and complex matters pertaining to public health are entrusted, greater qualifications and a relatively higher technique.

These growing services concern directly or indirectly the welfare of the whole community, and influence in some particular—the houses we live in, our places of employment, our working hours, the wholesomeness and purity of our food and water supply, and even the air we breathe.

To cope with every phase of their development statutable authority is required, adding consistently year by year to the already large volume of enactments designated “Public Health and Sanitary Law.” During the year the following Act, Orders, Rules, etc., have become law :—

The Poisons (Amendment) Rules, 1937.

The Poisons List (Amendment) Order, 1937.

The Milk (Special Designations) Amendment Order (Scotland), 1937.

The Public Health (Imported Food) Regulations (Scotland), 1937.

The Public Health (Imported Food) (Amendment) Regulations (Scotland), 1937.

The Factories Act, 1937, which consolidates, with amendments, the Factory and Workshop Acts, 1901 to 1929, and other enactments relating to factories.

Primarily, the Report is an account of the work done by the Department during the year under the various Acts, Orders, etc., which are administered by the Sanitary Inspector; but, under the respective headings, where deemed necessary or expedient, occasion has been taken to introduce a few appropriate or explanatory comments.

Opportunity is also taken to express to the members of the staff, indoor and outdoor, my appreciation of the service given by them throughout a very busy and trying year; further, I particularly thank the Departments of the Chief Constable, City Engineer, and Superintendent of Cleansing for their co-operation and assistance in the detection and reporting of nuisances coming under the observation of the members of their staffs.

Death-Rate: Density of Population, and Acreage.

The death-rate per 1,000, as corrected, for 1937 was 15.0, as against 14.1 in 1936 and 13.2 in 1935.

The population, as estimated to the middle of 1937 by the Registrar-General, was 177,711.

The acreage of the City, excluding foreshore, is 7,316. This works out at 24.29 persons to an acre.

Rainfall.

The total rainfall in Dundee, as noted at the Eastern Necropolis, was 33.02 inches as against 27.61 inches last year. The figures for each month are as follows:—

January	...	...	...	3.70 inches
February	...	...	...	3.04 inches
March	...	...	...	3.52 inches
April	...	...	...	2.12 inches
May	...	...	...	2.26 inches
June	...	...	...	2.48 inches
July	...	...	...	5.17 inches
August	...	...	...	3.00 inches
September	...	...	...	1.18 inches
October	...	...	...	2.93 inches
November	...	...	...	0.50 inches
December	...	...	...	3.12 inches
Total				<u>33.02 inches</u>

Showing an average fall of 2.75 inches per month as against 2.30 inches in 1936, and 2.41 inches in 1935.

Water Supply.

The Corporation are responsible for the Supply of Water to the City. The Department particularly concerned therewith is under the charge of Mr George Baxter, O.B.E., M.Inst.C.E., who reports for the year 1937 as follows:—

Sources and System of Supply.

“The Water Supply of the City of Dundee and of the area supplied from the Dundee Corporation Water Undertaking outwith the City is wholly by gravitation. The principal source of supply is Lintrathen Loch, situated approximately 18 miles north-west of

the city at an elevation of 680 feet above sea level. The other supplies of the Undertaking are derived from the Works of the old Dundee Water Company at Monikie and Crombie, situated approximately 8 miles and 10 miles north-east of the city at elevations of 476 feet and 522 feet above sea level respectively.

The relative importance of the foregoing works from a water supply point of view is apparent from the following particulars of their reservoir capacities and catchment areas.

	Capacity. Gallons.	Surface Area at Top Water Level.	Extent of Catchment Area.
Lintrathen Loch	2,141,429,000	440 acres	18,500 acres
Monikie and Crombie (4 Reservoirs)	654,763,000	181½ ..	3,500 ..

Under normal conditions 90% of the daily supply of the city and district is drawn from Lintrathen, 8% from Monikie, and 2% from Crombie for the supply of the Burgh of Carnoustie.

Area and Population Supplied.

The statutory area of supply of the Undertaking, excluding the areas supplied from the aqueducts and conduits between the various storage reservoirs and the city, extends to 54¼ square miles, of which 15½ square miles are situated in the compulsory area, and 38¾ square miles in the permissive area of supply.

Outside of the City of Dundee the principal burghs and villages supplied are:—On the north side of the Tay Estuary, the burghs of Carnoustie and Monifieth, and the villages of Barry, Muirhead, Birkhill, Invergowrie, Longforan and Meigle; and, on the south side of the Estuary, the burghs of Newport (including Wormit) and Tayport.

The area varies in altitude from sea level to an elevation of 457 o.d., which is the highest point supplied, while the average population supplied is approximately 204,000.

The number of houses supplied within the statutory limits of supply as at 15th May, 1937, was 54,230, water closets 46,057, baths 16,203, and the number of meters fixed for trade supplies 1,405.

Consumption.

The average daily consumption of water for all purposes for the year ending 15th May, 1937, was 10,969,400 gallons. This represents a consumption per head of the population supplied of 53.77 gallons, of which 38.34 is for domestic and non-metered supplies and 15.43 for trade and general industrial purposes supplied through meter. The minimum daily consumption for the same period was 8,043,300 gallons and the maximum 13,235,900 gallons.

Chemical Analyses of Waters.

The following are typical Chemical Analyses of the Lintrathen, Monikie and Crombie Waters:—

	Lintrathen	Monikie	Crombie
	One Million Parts Yield.		
Free Ammonia, .....	.002	.004	.002
Albuminoid Ammonia, .....	.074	.094	.072
Carbonate of Lime, etc.,	30.00	60.00	50.00
Chlorine,	8.00	15.00	12.00
Nitrogen, as Nitrates,	None	.10	.54
Nitrites,	None	None	None
Dissolved Oxygen,	10.85	8.57	10.36
Permanent Hardness (Clarke's Degrees)	1 $\frac{3}{4}$	3.99	3.71
Temporary Hardness,	Nil	0.21	0.21
Total Hardness,	1 $\frac{3}{4}$	4.20	3.92
Lead, or other Poisonous Metal,	None	None	None
P.h. Value,	6.8	7.5	7.2

All three waters have a little colour, i.e., Monikie and Crombie (Yellow .8, Blue .2), Lintrathen (Yellow 1.2, Blue .2), Lovibond's Standard Scale. The presumptive test for B. Coli is seldom positive in the case of all three of the raw waters in less than 50 c.c.'s.

New Works.

With the development for housing purposes of ground hitherto used for purely agricultural purposes and remotely situated from the present centres of distribution, the Department recently found it necessary to recommend the construction of two new service reservoirs—one of 750,000 gallons capacity at Balmossie north of Barnhill and the other of 1,000,000 gallons capacity at Gowriehill, north-east of Invergowrie. The purposes of these reservoirs is primarily to maintain adequate pressures at the present extremes of the Distribution System which are becoming overloaded.

The Balmossie Reservoir is now in service, and the intention is to proceed with the Reservoir at Gowriehill during 1938."

Domestic Water Supplies—Sinks, Etc.

The following table shows that there are 706 houses within the city lacking an internal supply of water—148 less than last year. Of these, 305 have already been dealt with under the Housing Acts by way of Closing or Demolition Orders, etc., or are included within Clearance Areas. In addition, 256 dwellings are considered by reason of low ceilings or general construction or situation, to be unsuitable for the installation of internal water supply and will probably form suitable subjects for future action by the Slum Visitation Committee. Thus, there are only 145 houses remaining to which attention is being given towards the introduction of the necessary fittings.

WATER SUPPLY.							
Ward.	No. of Houses	ROOMS				On Stairs, Landings, &c.	In Courts, Areas, &c.
		1	2	3	4 & over		
1.	59	55	4	—	—	59	—
2.	100	68	28	3	1	90	10
3.	116	92	19	2	3	92	24
4.	46	32	10	3	1	43	3
5.	25	17	5	2	1	14	11
6.	157	133	21	3	—	152	5
7.	21	2	11	6	2	2	19
8.	62	48	14	—	—	54	8
9.	56	42	14	—	—	54	2
10.	13	2	3	8	—	2	11
11.	5	1	—	4	—	—	5
12.	46	34	11	—	1	41	5
Totals.	706	526	140	31	9	603	103

46 houses and 14 other premises were each provided with a sink and internal supply of water direct from the public main; 112 houses had their supply improved by means of larger service piping, and in 65 instances old iron sinks were replaced with modern enamelled earthenware fittings.

Drainage.

The receipt of notifications of choked drains demands and receives immediate attention, and rightly so, as the nuisance is one both nauseating and dangerous to the public health.

In the course of the year 511 feet of cast-iron drain piping, 19 cast-iron traps, 521 yards of fireclay drain piping, 60 drain traps and 9 inspection chambers were used in renewals, repairs and additions to drainage systems throughout the city.

Public Sewerage.

The construction and maintenance of the sewers within the City are under the charge of Mr David B. McLay, B.Sc., M.Inst.C.E., who reports as follows:—

New Sewers Laid.

“ During the year from 16th May, 1936, to 15th May, 1937, approximately 4.23 miles of new sewers were laid, making the total length of sewers 161.02 miles; and the sum of £4,128 was expended on the work of maintenance and repair.

Flooding.

There was, fortunately, an absence of the severe flooding experienced in previous years, although one storm on 4th July, 1937, was responsible for a certain amount of damage due to flooding at West Whale Lane, Foundry Lane, and Cowgate.

In those cases, the cause of the flooding was attributable to the street gullies being unable to cope with the abnormal quantity of surface water from the roadways. At the time the flooding took place, the level of the tide was considerably below the maximum, and consequently the flow in the main sewers was not restricted to any extent by tidal water.

Proposed Intercepting Outfall Sewer.

Since the approval of this scheme by the Corporation on 2nd March, 1936, very little progress has been made owing to the Harbour Trustees having withheld their approval of the construction of a storm overflow through their grounds with an outfall at Shed V. on the Eastern Wharf.

The alternative is to continue the sewer at full size capacity to the Stannergate at ‘ Tuppenny John’s Corner,’ a proposal which will add very considerably to the cost of the scheme.

The question of a suitable storm overflow to the river is still under consideration, and it is hoped that a satisfactory arrangement may be arrived at very shortly between the Corporation and the Harbour Trustees.

Dighty Valley Sewer.

A scheme for the construction of a main sewer along the Dighty Valley from Trottick to Milton of Monifieth is now completed, and if proceeded with should settle the problem of drainage from the northern portion of the City for many years to come.

As a considerable length of this sewer will be outwith the present City boundary, further action is being delayed until the question of the extension of the present boundaries is taken up. It is hoped that a decision will be reached in the coming year.

Street Gullies.

The policy of replacing the old-fashioned type open street gullies with cast-iron trapped gullies has been continued throughout the year. These replacements are carried out while the streets are being reconstructed, or on receipt of complaints of offensive smells emanating from the gullies. The construction of the modern gully with its facilities for easy cleaning reduces the possibilities of frequent choking due to obstructions such as tin-cans, sticks, etc., accidentally or maliciously introduced into the gully.

Sewage Purification and Disposal.

Dundee is fortunately situated. Its sewage is discharged into the tidal waters of the Firth of Tay, thus the need for providing costly purification plants, as required by many inland towns, is obviated. While this is so, we cannot assume that the pouring of millions of gallons of crude sewage from sewers which extend for only a short distance into the Firth, is satisfactory and free from nuisance.

Following complaints from the west end of the City of nuisance arising from sewage from the existing Ninewells Outfall Sewer being deposited on the foreshore by the incoming tide, it was decided to extend this outfall for a distance of over 1,000 feet to a point beyond the line of the sea wall and near low water mark. This work will remove any cause for complaint in the future."

Rivers Pollution.

The Port Officer has received several complaints of smell from sewage discharged at the west end of Eastern Wharf. It is therefore hoped that the construction of the proposed intercepting outfall sewer will be proceeded with at an early date with the view of removing what really is a most offensive nuisance.

Scavenging and Refuse Disposal.

Under the guidance of Mr W. H. Sagar, Superintendent of Cleansing, this section of the public services continues to work smoothly and satisfactorily. In last year's annual report the department's activities were written of at considerable length, and to avoid repetition only those items that are informative or of general interest are noted.

Salvage Return—Year 1936-37.

			Tons	Cwts.	Qrs.
Scrap Metals,	...	...	150	6	—
Scrap Tins,	...	...	702	7	1
Paper	...	...	367	4	—
Glass,	...	...	151	19	1
Bones,	...	...	8	3	2
Fuel,	...	...	1,225	4	—
Mortar,	...	...	31	6	1
Dust,	...	...	5,887	17	—

Bottles — 16,472 dozen.

It has been found necessary, owing to the increasing amount of paper, bottles and broken glass being collected, to add considerably to the present storage space. When this work is completed the extension will serve a useful purpose, and the comfort of the employees dealing with these materials will be much improved as at present their space is cramped.

The prices ruling for these materials remain satisfactory and make salvage a profitable undertaking; in fact, nothing is burned other than matter for which the furnace is the only, and from the hygienic point of view, desirable destination.

The weight of refuse dealt with at Refuse Disposal Plant for the year 1936-37 amounted to 31,118 tons.

Large cities are frequently pressed for accommodation for surplus refuse, and in cases of emergency an extra depository is a very welcome auxiliary. A quarry on the outskirts of the city has been acquired for such purposes, and, in spite of it being situated 5 miles distant, has proved of good service.

The mechanical gully cleaner still pursues its useful work and fully justifies its existence.

Ashpits and Ash or Dust Bins.

Remarks under this head, owing to Dundee now being almost entirely catered for by an ashbin service, are superfluous. During

the year 755 new bins were laid down to take the place of those no longer fit for use.

SANITARY CONVENIENCES.

Water Closets.

Where practicable the work of installing water closets within dwelling-houses is being pursued with a fair measure of success. During the year, 403 such fittings were provided as follows:—157 within houses, 19 within shops, 68 within premises such as offices, work places, etc., 94 in suitable positions outside where it was found impracticable to provide them inside, and 65 were renewals in place of obsolete or defective fittings.

In connection with the foregoing installations the following materials were used:—4,718 feet of soil pipe and 1,682 feet of flushing pipe.

In a number of instances proposed improvements, including the installation of sanitary conveniences, could not be proceeded with owing to the work of reconstruction necessitating the removal of the occupier—practically an impossibility owing to the serious shortage of dwelling-houses within the city.

In the majority of cases where the existing accommodation is at a minimum the houses have either already been the subject of action under the Housing Acts or are situated in properties scheduled to be similarly dealt with in the future.

As required by the Department of Health for Scotland, the following Table is submitted showing the number of water-closets used in common by 2, 3, 4, 5 or 6 or more tenants respectively:—

Wards	W.C.'s Each Serving					
	2 Tenants.	3 Tenants.	4 Tenants.	5 Tenants.	6 Tenants or Over.	Total Tenancies.
1.	463	224	105	9	11	2,132
2.	307	113	83	23	17	1,514
3.	577	220	178	36	16	2,802
4.	363	265	128	22	25	2,303
5.	212	73	80	4	4	1,007
6.	382	228	210	34	36	2,692
7.	126	33	50	2	—	561
8.	581	321	165	42	39	3,270
9.	581	269	173	42	24	3,033
10.	83	28	14	9	6	388
11.	102	44	18	5	1	439
12.	871	341	294	42	30	4,339
	4,648	2,159	1,498	270	209	24,480

The year's figures, 24,480, compared with last year's, 25,364, shows a reduction of 884, partly due to improvements effected during the year and partly to houses in old properties being closed under the Housing Acts.

Earth Closets, Privies, and Privy Middens.

AS AT 31ST DECEMBER, 1937.

SITUATION.	NUMBER OF		TO SERVE.		
	Privies or Earth Closets.	Privy Middens	No. of Households.	Persons.	
				M.	F.
Dighty Toll House - - - -	1	...	1	2	2
Old Manse, Mains, - - - -	1	...	1	3	3
Castle Mains (South House) - -	1	...	1	...	3
Manse Lodge (Old Glamis Road) -	1	...	1	...	2
Trottick - - - - -	14	...	20	32	41
Harestane Rd. (W. March Cottar House)	1	...	1	2	1
Harestane Road (Bleachfield) -	1	...	1	1	1
East Pitempton - - - - -	1	...	1	1	1
Pitempton Railway Cottages - -	2	...	2	1	2
517 Strathmartine Road - - -	1	...	2	1	2
Station Cottage, Cox Street - -	1	...	1	3	1
West Kirkton Cottages, Kirkton Road	5	...	5	6	7
Gelly Cottages - - - - -	2	...	1	2	2
East Lodge—McAlpine Road - -	1	..	1	2	3
Main Lodge—Compar-Angus Rd, -	1	...	1	1	3
Backhill of Balgay - - - - -	1	...	3	4	9
King's Cross Cottar Houses - -	1	...	1	...	2
Hillside Farm - - - - -	1	...	1	1	1
Balgay—Mains - - - - -	1	...	1	1	1
Bingham Terrace (Gallowhill) -	1	...	1	1	2
220-222 Arbroath Road - - -	...	2	2	2	8
399 Arbroath Road (Craigie North Lodge)	1	...	1	1	1
Gotterstone Cottar Houses (North)	...	5	5	9	8
do. do do. (South) - - -	2	...	2	5	6
Barnhill Farm (Grieve's House) -	1	...	1	1	1
434 King Street, Broughty Ferry -	1	...	1	...	1
Arbroath Road (Linlathen W. Lodge) -	1	...	1	1	1

The position regarding Earth Closets, etc., remains the same, except for alterations in population, and a Demolition Order having been placed on the dwelling-house at No. 434 King Street, Broughty Ferry, still in occupation.

Anyone with a knowledge of the city and its environs readily knows that the properties served by these old-fashioned, primitive

conveniences are all on the outskirts of the town ; but, as mentioned in the report for 1936, as the city expands and drainage facilities are provided, these conveniences will gradually cease to exist.

Baths and Wash-Hand Basins.

At privately owned property 43 baths, 129 wash-hand basins, and 2 hot water systems have been installed. During 1936 the Corporation decided to provide wash-hand basins in some 516 dwellings in those housing schemes which were without such fittings. The work of installation has now been completed.

Washing-Houses.

During the year 81 enamelled earthenware wash-tubs were provided in place of insanitary wooden tubs, 12 earthenware tubs renewed, 9 defective cast-iron boilers replaced by new boilers, and 1 gas boiler installed in place of the old cast-iron fitting. At two properties new washing-houses were erected where formerly there was no suitable accommodation, and at another property the existing washing-house was rebuilt.

The undernoted materials were used in connection with Domestic Water Supplies, Sinks, Water Closets, Baths, Wash-Hand Basins and Washing-Houses :—

230 lead traps ;
13,165 feet of water pipe ;
5,308 feet of Waste pipe ; and
4,715 feet of vent pipe.

Plans Submitted to the Works Committee.

Plans, prior to submission to the Works Committee, are examined and every opportunity is taken to ensure that local regulations regarding sanitation are maintained and the admission of air and light to existing buildings is not seriously restricted.

During the process of a survey it was observed that a bungalow in Ward VII., erected in the course of the year, was not in conformity with the plan approved by the Local Authority. The plan showed a 1 x 4 roomed house, and, while in actual construction this size of dwelling materialised, later alterations were carried out which resulted in the provision of an additional attic bedroom with the installation of tubs in one of the lower rooms, following which, the building became two separate subjects, let as such,

comprising in each, living-room, bedroom and kitchenette, with bathroom used in common. The matter was brought to the notice of the appropriate Department, and their resultant action secured compliance with the plan as originally approved.

Schools.

The following information was kindly supplied by Mr John R. Cameron, M.A., Director of Education :—

“As indicated in a previous Report, the Town Council, since it became the Education Authority for the City in terms of the Local Government Act of 1929, has been responsible for the opening of no fewer than seven new schools. In addition, work has recently commenced on a large new Central School for Roman Catholic children between the ages of 12 and 15. This school, which will be known as St Michael's, will occupy a site in Graham Street to the south of the L.M.S. Railway (Maryfield Branch). Plans for a school of similar type for children other than Roman Catholic are in the hands of the City Architect, and it is intended that this school should be built on a site to the south of Clepington School.

Before the close of the year 1938 it is hoped that the new buildings in St Mary's Lane, which are intended to house the Roman Catholic children of Lochee between the ages of 7 and 12, will be ready for occupation. The inauguration of this school will provide the Roman Catholic children of Lochee with hygienic school conditions comparable to those already at the disposal of the children in the parishes of St Joseph's and Ss. Peter and Paul.

Approval has been already given to the erection of a school of 15 classrooms, with halls and other appropriate modern accommodation, in the first development of the Mid Craigie Housing Scheme. The Education Committee have also provisionally selected a site for a school of similar size to accommodate eventually the Roman Catholic pupils of Mid Craigie and the projected neighbouring housing scheme at Linlathen. The Committee have also recognised the fact that the development of new housing schemes at Magdalene's Kirkton and Beechwood will in time call for a similar provision of new schools to meet the requirements of those boys and girls who are transferred from the districts with which they are familiar to areas where the environment is new and strange.

In October, 1937, the Nursery School in Blackness Road, which had occupied new and modern buildings since September, 1934, and had previously been conducted mainly by voluntary workers since 1920, passed under the control of the Local Authority. Thereby the Local Authority assumed a large measure of responsibility for the welfare of the pre-school children of the district, for their health no less than their mental outlook. Such provision for the pre-school child will probably be extended in the future, as circumstances permit, for the Education Committee have already on 23rd June, 1936, decided to erect a Nursery School on ground in Cotton Road adjacent to Ann Street School. Plans for this school have been approved by the Scottish Education Department, and the opportunity will be taken, when the Nursery School is erected, to provide modern latrines for Ann Street School itself, which has for many years been deficient in this hygienic feature of a modern school.

Besides erecting new schools, the Education Committee have been mindful of the needs of the older schools. Every year a certain number of schools have been repainted both externally and internally. The increased cleanliness and brightness produced by the repainting of Ann Street, Hawkhill, Liff Road, Mitchell Street and St Andrew's Girls' Schools, have been of great psychological benefit to both pupils and teachers. Every year also, so far as financial conditions permit, a domestic hot-water system has been installed in a select number of schools, and in schools where such a system has fallen into decay it has been reconditioned. In 1937 Liff Road and Rosebank Schools were each provided with a new system, and the Grove Academy had an old system overhauled. During 1937, also, entirely new heating systems were installed in Broughty Ferry Eastern School and Ancrum Road School. The Plenum system, which had been in operation in these schools since they were opened, had for long been unsatisfactory, and it is now only to be found in two schools in the City, namely, Stobswell Central School and St John's Central School.

All the schools in the City have for some years been fitted with electric light. Mains School, however, had no lighting at all until October, 1937, when there was installed a system of lighting by Calor Gas, and this has given satisfactory results."

Complaints.

Complaints received by the Department, either verbally or in writing, numbered 4,186 against 4,327 in 1936. This continued

decline is very gratifying, exemplifying as it does the gradual education of the public in general hygiene. The groundless complaints numbered 211, investigation of which almost invariably disclosed the primary cause to be personal malice, an evil which we fear will always be with us.

Statutory Intimations or Notices.

In the execution of the requirements of the Public Health (Scotland) Acts, Burgh Police (Scotland) Acts, Local Acts and other Legislation, 11,204 notices or intimations, written or oral, including one notice served in terms of Section 20 of the Public Health (Scotland) Act, 1897, were transmitted to property owners or agents or authors of nuisances, all of which have received or are in course of receiving attention.

General Nuisances.

51,510 visits were made for the detection of nuisances, and those discovered numbered 3,960, for which remedial measures were applied forthwith. Happily in most instances the steps taken for their abatement were immediately successful, but in isolated cases all our efforts, whether verbal or latterly through the medium of notices, failed to accomplish the desired objective and the law was our only resort.

On two occasions we had to institute Court proceedings owing to the defiance of the parties responsible.

One concerned rhones in a perforated and leaky condition—a fine of 20s was imposed. The other related to a broken window pane which the factor persistently refused to renew. On the eve of his appearance in court he carried out the work and the case was departed from.

A complaint alleging a building to be overrun with bugs reached the Department. This was disconcerting as disinfection had been carried out on a large scale at the property in question some time previously. On enquiry it was found that the insects which were the cause of the alarm bore a marked similarity to bugs, but on submission to the Zoologist were identified as wood beetles of the genus “*Niptus Hololeucus*,” a near relative of the death-watch beetle which is responsible for so much damage in old buildings. For the destruction of the pests satisfactory results were obtained by the use of sodium fluoride.

The premises occupied by a firm of dry cleaners again received our attention on numerable occasions. Complaints were received from nearby tenants declaring that their places of business were being pervaded by the fumes from the liquid used in the cleaning process.

Frequently the nuisance was caused by a mechanical breakdown, and on such occasions the plant was put out of operation until repairs were effected. In an endeavour to end the nuisance it was arranged with the proprietors to have the window of the shop in which the plant was located converted into an air-tight chamber. Since this was done, and a new ventilator provided, no further complaints have reached us.

During the early part of the summer when, unfortunately, the refuse destructor was out of commission and the Cleansing Department forced, from lack of other accommodation to utilise the Dump at Riverside Park where land is being reclaimed from the river, as a means, for the disposal of refuse, complaints of obnoxious odours came pouring in by letter and telephone.

The " West End Smell " as it was promptly named was anything but elusive—receiving prominence in the local press and meriting the particular attention of the Town Council and officials alike until it had been abated—but the remedy was not so easily found.

First efforts to combat the smell by sterilising the enclosed water area with large quantities of lime did not produce the desired result, and a fire engine was put into service to pump the basin dry—millions of gallons of foul water being transferred to the estuary. Immediately thereafter the Cleansing Department found a suitable dump just outside the Burgh and the remainder of the filling in of the offensive area was done entirely with clean material. Thus ended a really troublesome nuisance.

Verminous Houses and Persons.

Verminous Houses.—During 1937 our services were utilised for the treatment of 284 rooms in 195 houses, employing both sulphur candles and insecticide. Incorporated in those figures are 48 rooms in 33 new houses, the property of the Corporation.

Apart from the actual fumigation of houses, our advice was

sought by people who thought they saw signs of bugs in their houses. Although many of these complaints were groundless, tenants are encouraged to voice even vague fears as, with bug infestation, it pays to make certain either way.

In addition to the well-known sources of infestation, one which might be overlooked entirely is new furniture, or, would it be better termed, supposedly new furniture. It is not uncommon for furniture purchased on the hire purchase system to be retrieved, for obvious reasons, by the seller. Doubtless these articles will be subjected to some form of renovation prior to exposure for re-sale, but it may be that the former would-be owner's house was bug-infested, and the new and unsuspecting purchaser is dismayed when, shortly after delivery of the furnishings, he discovers bugs in his house—the only conveyance for which could have been the furniture.

It would, therefore, be a wise policy for intending purchasers to satisfy themselves that the goods are NEW.

Verminous Persons.—The Department were concerned with 7 cases relating to this type of complaint. Nearly all the persons were old, either bed-ridden or so greatly debilitated as to be unable to do much for themselves.

It is a most distressing plight for those old folk who through age or ill health are no longer able to keep their homes or themselves clean, and their physical decline is further aggravated by unclean surroundings. It is indeed a relief when these people agree voluntarily to enter hospital or some institution where they will be looked after.

Whitewashing and Painting Common Stairs and Passages.

In terms of the Dundee Corporation Order, 1935, letter intimations to the number of 397 referring to the repairing, cleaning and painting of stairs and passages, water closets and wash-houses used in common at 780 properties were dispatched to house owners and agents apprising them of the necessity for such renovation.

While, on the whole, these requests met with a good response, and the work proceeded at a satisfactory pace, it was found necessary in 45 instances to issue statutory notices with a view to re-

freshing the memory of certain owners and agents regarding the discharge of their liabilities, following which the work was carried out.

Our free brush service still remains popular among a certain section of the community, 2,325 issues of brushes taking place for the cleansing of approximately 6,675 rooms. Ochre and whiting were also supplied in necessitous cases.

Back Courts, Areas, Footways, Etc.

The maintenance, renewal and provision of paving in back courts, etc., is work which proceeds throughout the year and is of great assistance in maintaining these places in a cleanly condition.

It cannot be too strongly stressed that paving is essential in densely populated areas, especially where the rear courts are used by children as playgrounds.

As was mentioned in last year's Report, the Corporation commenced the work of paving the pathways, etc., in connection with their housing schemes. This work still proceeds, and many thousands of square feet of paving material have been used in the process. Approximately 73,238 feet of paving or other impervious material, along with necessary drainage facilities were laid down at back courts, etc. Included in this figure are the areas paved by the Corporation at their property.

Smoke Nuisance.

The vast amount of soot deposited annually on big industrial towns may not receive more than the imprecations of exasperated housewives and shopkeepers, but in reality it is a matter for very grave concern.

Not only are we deprived of the benefit of the sun, but we run the danger of inhaling fumes foreign to a pure atmosphere, discharged into the air along with smoke.

Power, in the form of legislation, has been placed in the hands of Sanitary Inspectors to enable them to take statutory action against persons responsible for atmospheric pollution.

Two serious complaints were received concerning grit emission from factory stalks during the year; one was easily abated,

but the other, of much greater magnitude, is not yet cured. A grit arrester has been ordered and its installation is to commence in the spring of 1938. Meantime, to minimise the nuisance, the power has been reduced by 25%.

As a result of action by the Department, one mill owner has reduced the demands on his steam plant by the introduction of auxiliary electric motors.

Another improvement worthy of mention is the installation of a new boiler with mechanical stoker, successfully eliminating the smoke nuisance.

A chimney abutting on a main thoroughfare which, in spite of heightening and the use of fuel of a less smoky nature, still persisted in giving offence. Finally the fixing of an apparatus designed to consume smoke, etc., mitigated the nuisance.

While on the topic of smoke, perhaps here is the best place to mention a complaint received from the residents in a housing scheme about smoke from chip potato vans entering their houses. Those mobile shops may be convenient to some people, but smoke continually pouring from their chimneys while they travel through the streets cannot be tolerated. In the case in point, the substitution of a suitable fuel overcame the difficulty.

Over the period under review, 17 observations were taken, resulting in the dispatch of 8 letters and in 9 instances verbal warnings were delivered.

Rats and Mice (Destruction) Act, 1919.

Notification of rat infestation at properties is investigated as soon as possible in order to lose no time in the application of remedial measures. Generally, factors and tenants, the latter upon whom it is incumbent to take defestation steps, are eager to follow our advice in the work of ridding premises of these vermin.

The year 1937 may be looked upon as being normal regarding rat complaints, which were neither excessive nor unusually low.

From the outskirts of the town, practically in the open country, where poultry keeping is carried on in a small scale, came reports of the presence of rats. The demolition of the hen-houses and the gassing of the ground on which they stood had the desired effect.

At another locus a shed resting on the ground was found to be the source of infestation. The shed was dismantled and the rat population killed—in all eleven. When re-erected the structure was kept about eighteen inches from the ground, and so far no further complaint has been received.

As has been our procedure in the past, no special rat week was held in 1937, favouring, as we do, continuous and not intermittent action.

The Milk and Dairies (Scotland) Acts.

Registers.—At the end of the year the Registers stood as follows :—

Dairymen or Cow-Keepers	...	...	...	...	26
Retail Purveyors of Milk (including Producer-Retailers)	871				
made up as under :—					
Purveyors from shops, milkhouses, etc.	...	...	...	...	784
Purveyors from vans	...	...	...	...	24
Purveyors resident outwith the City but registered to purvey milk within it from vans on streets	...	...	...	...	33
Purveyors from shops or milkhouses together with vans on streets	...	...	...	...	30

During the course of 1937 a further reduction in the number of Registered Cow Sheds took place, there being now 26 on the Register as against 28 in the previous year. In two instances there are no cows housed within the byres, the proprietors purchasing their milk supply from outside sources.

Contained in the other 24 Dairies were 410 cows, and these premises were inspected on 346 occasions. Shops and places where milk is retailed received 1,435 visits.

In general these businesses have been conducted in a manner which did not call for official action, limewashing being carried out at the specified times. With the exception of one or two cases, where notices were required and immediately complied with, the removal of manure gave rise to no untoward circumstances.

Of the two Dairies removed from the Register, in one instance the owner gave up cow-keeping and his accommodation is being utilised for keeping store cattle; the other, a comparatively modern and well-stocked farm, was acquired for housing development.

At one cow shed all the stalls had the cement facing renewed above the troughs.

The neglect of notification of infectious disease among the families of dairymen and their employees on two occasions led to those responsible being severely reprimanded. The possible consequences of their carelessness were strongly impressed upon the culprits.

There are 6 cowsheds where 12 milk cows are kept, exempt from Registration, under Section 2 of the 1914 Act "From which a person sells milk only in small quantities and for their own consumption to persons in his employment or to neighbours."

Generally, Articles 4 to 14 of The Milk and Dairies (Scotland) Order, 1934, are being complied with.

The Milk (Special Designations) Order (Scotland), 1936, etc.

At the end of the year the Register showed that the under-noted licences had been issued by the Local Authority:—

- 1 Producer of Pasteurised Milk; and
- 94 Retail Sellers thereof.

A total of 95 as against 96 last year; and

- 1 Producer Dealer in Tuberculin Tested Milk;
- 2 Producer Dealers in Certified Milk;
- 1 Supplementary Licence for dealing in Certified Milk;

and in addition there are registered:—

- 41 Dealers in Certified and Tuberculin Tested Milks.

The diverse assortment of containers in use for the delivery of milk creates a situation worthy of attention. Glass bottles and metal cans which have done duty for any length of time soon show signs which would almost warrant their being sent to the scrap heap; but, instead of being replaced, they are continued in service and are potential sources of danger, especially chipped and cracked bottles.

The waxed cardboard carton is preferable in every way. It is quite appreciated that the abolition of bottles and cans in favour of cartons would be a costly undertaking; but against this there is to be considered the saving in time and labour in collecting and

washing empty bottles and cans. Doubtless the initial cost would be recouped in the many savings the new system would involve. It is well known that to save it is first sometimes necessary to spend.

Another and more vital benefit, especially to those concerned with Public Health, would be the knowledge that milk receptacles would not be available for re-use after having been pressed into service for purposes better left to the imagination than described.

Artificial Cream Act, 1929.

There is only one registration in force under this Act.

Stables and Piggeries.

Stables.—From 212 at the end of 1936 there has been a further drop of 43, leaving now only 169 stables within the city. Visits amounting to 382 were paid to these premises, all of which were maintained satisfactorily. On two occasions it was necessary to issue notices requesting the removal of manure, both of which were complied with.

Piggeries number 38, and call for no special comment, everything in connection therewith is conducted in a satisfactory manner. At the end of the year there were 713 pigs within the Burgh. Inspections numbered 202.

Offensive Trades.

There is no alteration falling to be recorded in connection with the premises utilised for this type of business. They are located as undernoted :—

Old Air Station, Stannergate Road—Tallow Melter.

At Public Slaughter-Houses, East Dock Street (Private)—Gut Cleaner (1) and Hide Factors (2).

At Public Slaughter-Houses, East Dock Street (Corporation)
—(a) Slaughterer of Cattle; (b) Tripe Cleaner; (c) Tallow Melter; and (d) Blood Boiler.

A complaint was received during the summer alleging that smell from the plant at the Slaughter House rendered it impossible for householders in the vicinity to keep their windows open. The matter was investigated and, while there was little cause for the

complaint, the plant which had been recently overhauled, was examined and found to be in perfect working order.

Apart from this, there is nothing of an untoward nature to comment on.

Interments.

Section 69 of The Public Health (Scotland) Act, 1897

On 54 occasions applications were made to this Department for carrying out the interment of persons dying in a destitute condition or where the next-of-kin, through pecuniary difficulties, were unable to employ an undertaker themselves.

In all but three instances (where other arrangements were made) these requests were granted. Against a cost of £81 18s 1d for the 51 interments undertaken by this Office (6 adults, 32 juveniles and 13 still-born infants), the sum of £21 13s 8½d was recovered.

Burial Grounds.

The following interments were made at the undernoted Burial Grounds within the Burgh during the year:—

Eastern Necropolis	1,426
Western Necropolis	1,069
Western Cemetery (Perth Road)	160
Barnhill Cemetery	225
Parish Church Burying-Ground (Broughty Ferry)	2
Constitution Road Burying Ground	0
St. Luke's Episcopal Church, Downfield	0
New Mains Cemetery	14
Old Mains Cemetery	0
<hr/>	
Total	2,896

It will be observed that there were no interments carried out in the Old Mains Cemetery. As the result of action commenced by this Department, it is hoped this ancient necropolis will soon be officially closed as a burying ground.

In addition to the interments in cemeteries there were 134 cremations carried out at the Dundee Crematorium, which information has been most kindly supplied by the Secretaries.

HOUSING

In these days of town planning to try to form a mental picture of the pre-war appearance of a town with which one was familiar is rather difficult. Whole areas have been cleared, some rebuilt on with modern houses and others left as permanent open spaces. The most striking and impressive changes, however, are found on the outskirts, where numerous housing schemes have sprung up creating, veritably, a new suburbia. Yet with all these new houses, it is well known that there is still a vast deficiency. Far from being solved, this housing question has become more and more serious during recent years.

The following observations convey a few of the contributory causes for this acute shortage of houses.

To commence with, in all fairness it is but proper to admit that the dearth of suitable dwellings is, in part, due to the lull in building operations for several years prior to the War, the complete stoppage of activity during that period, and to the fact that very few houses have been erected by private enterprise for letting purposes; probably brought about by the higher standards regarding light, ventilation, sanitary fittings, culinary and washing arrangements, etc., raising the cost of erection beyond economical propositions.

Apart from this, however, for some inexplicable reason certain property owners for many years have not been doing their duty by their tenants. Houses have become steadily less and less fit for habitation, even the simplest repairs have not been carried out. In numerous cases complete neglect has led to an otherwise good property deteriorating and then the Demolition Order, Closing Order or Clearance Area is the only expedient left to the responsible officials. If those owners would act at times on their own initiative their tenants would not be driven so frequently to appeal to the Sanitary Authority.

In a large measure the responsibility towards ensuring that houses are kept habitable and sanitary has thus devolved on the Sanitary Inspector, who very often has to use the utmost persuasion to have repairs effected or, eventually, pass the matter out of his own hands into those of the Law. The natural outcome of this is, that the official finds himself willy-nilly the bugbear of property owners.

Again we have to report, so far as Dundee is concerned, no building solely for the relief of overcrowding has been undertaken; this need, in itself, requires many new houses and the introduction of a decanting system before the spectre of overcrowding with its attendant evils vanishes completely. Nor is provision being made for the newly married, who frequently have to share the house of parents or relatives or go into lodgings. Besides giving an unsatisfactory start to the young couple in their new life, overcrowding is thus aggravated still further.

Our problem then is threefold in character, viz. :—to provide houses for (a) overcrowded families; (b) the newly wedded; and (c) families from unfit dwellings, including single persons of whom there is a fair number.

Mention might also be made of the difficulty encountered when an owner gives an Undertaking to refrain from re-letting dwellings till they are rendered fit. This work, at the moment, is being held up unduly owing to the lack of accommodation to allow of the tenants being displaced while reconstruction is carried out. If temporary accommodation could be set aside for those families while the houses are in the hands of tradesmen, this very important and necessary work could be accelerated.

Housing Requirements.

Supplementary to what has been written in the preceding section it is necessary that some consideration be given to the efforts of the Local Authority to overcome our clearly recognised housing shortage, and to their future programme for that purpose, particularly in respect of Slum Clearance.

During the course of 1937 the Housing Sub-Committee deputed to examine the various Representations and Joint Reports on properties considered unfit, and to hear the owners or their agents as to any proposals towards improvements and reconstruction, dealt with a total of 2,258 dwellings.

Following their deliberations the Committee recommended that :—

581 be Closed by Order; and

530 be the subject of Demolition Orders.

That undertakings not to re-let be accepted in respect of 176;
 895 be the subject of Clearance Resolutions; and
 76 be dealt with by way of Repair Notices.

The opinion of the Committee so far as 291 houses were concerned (169 Closing Order and 122 Demolition Order) was challenged by the owners, and in support of their contention that the properties did not warrant such drastic measures, appeals were lodged in Court for the annulment or cancellation of the Orders as applied. In terms of the Act such Orders will accordingly be ineffective until Court proceedings are finally concluded. Thus from the aforesaid total of 2,258 dwellings must be deducted those 291 houses under appeal, as also the 76 dwellings which are the subject of Repair Notices, the tenants of which are not assumed to require to be rehoused.

When this is done we find that over the year 1891 houses have been dealt with by way of Closing and Demolition Orders, Undertakings, or included in Clearance Areas, and for which a corresponding number of new houses will require to be erected to meet the re-housing demands of the families in occupation.

In comparison we must examine the other side of the picture and consider in what degree the Corporation have contrived to meet this demand.

To this end the figures as supplied by the Director of Housing, the responsible official for the production of our Corporation House Supply must be considered. His report shows that during 1937 only 376 houses were erected and completed ready for occupation for the purpose of mitigating and relieving Slum Clearance.

Therefore, during the course of one year's programme we are some 1,515 houses in arrear. It can thus be clearly understood that many of the families in those houses will have a number of years to wait before having the opportunity of living in dwellings which give reasonable comfort and opportunity to live decent and healthy lives, **unless the rate of house production is greatly accelerated.** What will the condition of these condemned houses be in a further period of years during which repairs effected will be negligible and in many cases nil?

Let us amplify our remarks on this subject by reverting once again to statistics from which we can glean some further information if we are to understand the position more fully.

At the end of the year under review our records show that there were 3,238 families living in 3,194 houses to which action under the Housing (Scotland) Acts, 1925-1935, had been applied, while at the same time 862 dwellings are reported as being under construction in Corporation Schemes. Notwithstanding that the latter number may be completed and ready for occupation by the end of 1938 there will still remain a large balance of families requiring accommodation, a prospect to them which is anything but rosy. Their new houses are possibly included amongst the 2,152 "Proposed to be Erected," what we can only meantime term "paper houses" which might materialise given the necessary time.

That our Corporation is definitely alive to the urgent demand for an accelerated programme of house building is clearly shown in their efforts towards exploring any possible avenue which would tend towards a solution of the problem, and their realisation that it is only by the close co-operation of all concerned towards a co-ordinated effort that our difficulty will be solved.

TABLE I.

Shows the number of houses which have been erected by the Corporation and Private Enterprise during the year 1937 :—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
By the Corporation,	64	36	184	92	376
By Private Enterprise	—	12	162	152	326
				Total	702

This is a decrease of 314 on the figure for 1936, and as 326 houses provided by Private Enterprise were mainly for sale to owner-occupiers only 376 houses remain for Slum Clearance in terms of the 1925-1935 Acts.

Dundee Tenement

Byron Street Do.

Fryday Street Do.

Wester Clepington I. Do.

Do. II. Do.

Tullidoph Road Do.

Do. Do.

West Port Tenement

1930 Act—Slum Clearance—

Sandeman Street Tenement

Queen Street, Broughty Ferry Do.

Clepington Road Do.

Caird Avenue Do.

Wedderburn Street Do.

Lawton Road Do.

Moncur Crescent Flatted

Lorne Street Tenement

Arbroath Road Do.

Carnegie Street Do.

Constitution Street Do.

Cotton Road Do.

Ann Street Do.

Caning Street Do.

Kinghorne Road Do.

Harcourt Street Do.

Paterson Street Do.

Ogilvie's Road Do.

Hilltown I. Do.

Bonnybank Road Do.

Forebank Road Do.

Hawkhill Do.

Cross Row Do.

Hill Street Do.

King Street, Broughty Ferry, Do.

Marshall Street Do.

Fairbairn Street Do.

Hospital Street Do.

Dens Road Do.

Matland Street Do.

Bennie Road Do.

Belgray Street Do.

Wolsley Street Do.

Mid Craigie, 1st Dev. Do.

Mid Craigie, 2nd Dev. Do.

Hilltown (II.), Nos. 59-69 Do.

Queen St., Bro. Ferry, 2nd Dev. Tenement

Gardner Street Do.

Morgan Street Do.

Beechwood, 1st Dev. Do.

Beechwood, 2nd Dev. Do.

Beechwood, 3rd Dev. Do.

Beechwood, 4th Dev. Do.

Not Allocated—

Wellgrove Flat. & Cot.

Polepark Tenement

Magdalene's Kirkton, 1st Dev. Do.

Magdalene's Kirkton, 2nd Dev. Do.

Magdalene's Kirkton, 3rd Dev. Do.

Do. and West Kirkton, 4th Dev. Do.

Linlathen Do.

Kirk Street, Lochree Tenement

Long Lane, Broughty Ferry Do.

Dens Brae Do.

The Corporation of Dundee as Fleming Trustees—

Fleming Trust Deed—

Easter Clepington Flatted

Scott Street Do.

Rooms

1 2 3

192 158 146

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

The Corporation also provided 76 Timber Huts throughout the City, and of these 49 have been demolished, leaving 27 still remaining at 31st December, 1917.

TABLE III.

Gives the number of houses erected since 1919 by the Town Council.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	—	116	150	—	266*
1921/25 ...	—	126	536	102	764
1926/30 ...	—	516	1,839	50	2,405
1931/35 ...	—	569	1,419	155	2,143
1936 ...	32	182	368	143	725
1937 ...	64	36	184	92	376
Total ...	96	1,545	4,496	542	6,679

*Includes 76 Timber Huts.

The above Table shows 6,679 houses have been provided by the Corporation, or an average of 351 per annum for the past 19 years. During that period, however, a large number of houses has gone out of use as such as is detailed in :—

TABLE IV.

Houses Voluntarily Closed, Closed by Order, Demolished or turned into Business Premises :—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	63	74	12	20	169
1921/25 ...	106	86	32	47	271
1926/30 ...	376	300	66	86	828
1931/35 ...	856	1,019	196	188	2,259
1936 ...	231	199	25	18	473
1937 ..	208	246	18	17	489
Total ..	1,840	1,924	349	376	4,489

This total is equal to an average annual figure of 236 houses closed, against an annual provision of 351, or a net increase of 115 per annum in the City during the period under review.

To arrive at the grand total of houses provided there are other sources of supply which must be taken into consideration, such as closed houses made fit for occupation and re-opened, business premises converted into houses and large houses sub-divided—(Table V.) houses provided by the beneficence of the Fleming and Gray Trusts — (Table VI.), and Private Enterprise—(Table VII.).

TABLE V.

Shops, etc., converted into dwelling-houses; houses reconstructed and re-opened, and large houses sub-divided.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	22	83	19	15	139
1921/25 ...	27	46	18	25	116
1926/30 ...	19	64	17	34	134
1931/35 ...	99	199	41	79	418
1936 ...	15	17	9	13	54
1937 ...	3	16	9	15	43
Total ...	185	425	113	181	904

TABLE VI.

Houses provided by the (a) Fleming, and (b) Peter Gray, Trusts:—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
(a) By Fleming Trust (Gift of the late Robert Fleming, Esq., LL.D.)	192	158	146	—	496
The extension to this scheme by way of additional houses which are proposed to be erected in the West End of the City, was not commenced during 1937 as anticipated. Plans of 3 and 4 apartment houses were prepared, but the Advisory Committee decided on a new layout showing houses of 1, 2 and 3 apartments. This is in course of preparation.					
(b) By the Peter Gray Housing Trust	24	—	—	—	24
Total					520

TABLE VII.

Houses provided by Private Enterprise.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	—	—	1	6	7
1921/25 ...	—	1	51	261	313
1926/30 ...	—	2	459	555	1,016
1931/35 ...	2	5	131	555	693
1936 ...	12	42	112	125	291
1937 ...	—	12	162	152	326
Total ...	14	62	916	1,654	2,646

These Tables, together, give the sum of 4,070, which figure, added to the Corporation's quota, makes a grand total of 10,749 houses provided during the past 19 years, being an average of 566 houses per annum over that period. From that total, however, we must deduct 4,489, the number of dwellings which have gone out of use as such during the same period, thus giving a net increase of 6,260 houses in the City, or an average annual contribution of 329.

HOUSING (SCOTLAND) ACT, 1925

The Dundee (Blue Mountains, Etc.) Improvement Scheme, 1925; Confirmation Order, 1925, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1932.

The Dundee (Small's Wynd) Improvement Scheme, 1928, Confirmation Order, 1929, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1935.

HOUSING (SCOTLAND) ACTS, 1930/35.

The campaign begun under the 1930 Act against insanitary houses and areas in the City is still proceeding, and the result of our efforts to date is set forth in the following tables:—

CLEARANCE AREAS.

(First Instalment.)

The representations made in 1930 embraced some 18 Areas in Wards 1, 4, and 5, involved 304 dwelling houses and 73 other premises. The Director of Housing, in order to develop the area, included 23 houses and 19 other premises.

Altogether 327 houses were included, of which 299 were occupied by 970 persons.

The position at 31st December, 1937, is:—

All the houses have been vacated and demolished with the exception of one tenemental property and two small supplementary sections, embracing:—

4 Houses, 1 Store and 3 Clubrooms.

**Queen Street, Broughty Ferry, 4 Areas; and
The Second Instalment, 12 Areas;**

both Schemes were completed in 1933.

Bog Close and Bogwell Clearance Areas.

Of the 52 houses embraced within the two areas comprising

- 46 1-roomed houses;
- 4 2-roomed houses; and
- 2 4-roomed houses

only one one-roomed house (now closed by undertaking) was still in occupation at the end of the year, but we understand that the tenant will be rehoused at the beginning of January, 1938.

Third Instalment—Clearance Areas 35 to 91.

Consisted of 57 Areas, situated in Wards 1, 2, 4, 5, 6, and 9, and comprised 834 occupied and 56 unoccupied houses and 100 other premises. In order to satisfactorily develop the various areas, the Director of Housing originally included 111 houses and 80 other premises, while during 1935 a further two houses, including one unoccupied, were added in terms of Section 3, bringing the total number of houses within these Areas to 1,003, having a population of 3,342.

During 1936, the Clearance Resolution, dated 2nd November, 1933, was rescinded so far as affecting certain properties in Ward VI. comprising 55 houses and 8 other premises occupied by 164 persons. The total number of houses now included within these areas is 948 with a population of 3,178 persons.

The position at 31st December, 1937, is :—

Houses Still in Occupation.

1 Room	2 Rooms	3 Rooms	4 Rooms and Over	Total
121	127	17	4	269

showing that 684 houses have been Closed or Demolished, viz. :—

	1 Room	2 Rooms	3 Rooms	4 Rooms	Total
Prior to Representation, ...	34	18	3	1	56
Since Representation,	298	300	21	9	628
	<hr/> 332	<hr/> 318	<hr/> 24	<hr/> 10	<hr/> 684

Clearance Areas 92 to 119.

These Areas were dealt with by the Town Council during 1935 and 1936.

Clearance Areas 92 to 100 are situated in Wards 2, 3 and 8, and embrace 109 houses and 17 other premises. To make effective schemes and enable the areas to be satisfactorily developed, an additional 47 houses and 17 other premises were included by the Director of Housing, in terms of Section 3 of the Act, making a total of 156 houses (of which 29 were unoccupied) and 34 other premises. The position at the end of the year shows that 35 houses have been vacated, leaving 92 houses still occupied. One building comprising a 5-roomed house has been demolished.

Clearance Area 101, Ward 2.—Embraces 43 houses and 5 other premises. To make this scheme effective and enable the area to be satisfactorily developed an additional 3 houses and 17 other premises were included by the Director of Housing in terms of Section 3 of the Act, making a total of 46 houses (of which 9 were unoccupied) and 22 other premises. The position at 31st December, 1937, shows that 5 families in the area have been displaced, leaving 32 families still in occupation. Two buildings comprising 2 x 1 and 1 x 4 roomed houses, and 3 shops have been demolished.

Clearance Area 102, Ward 1.—Embraces 56 houses (of which 13 were unoccupied) and 9 other premises. At the end of the year 17 of the families had been re-housed.

Clearance Area 103, Ward 8.—Embraces 53 houses and 5 other premises. At Corporation Meeting held on 2nd April, 1936, the Clearance Resolution was rescinded, and it was agreed to apply Closing or Demolition Orders on the whole of the houses concerned. All were, on a later date, dealt with in terms of Section 16 of the Housing (Scotland) Act, 1930.

Clearance Area 104, Ward 8.—Embraces 56 houses (of which 3 were unoccupied) and 1 shop.

At Corporation Meeting held on 6th February, 1936, the Clearance Resolution was rescinded, and it was agreed to apply Closing or Demolition Orders on the whole of the houses. All were, on a later date, dealt with in terms of Section 16 of the Act.

Clearance Areas 105 and 106, Ward 3.—Clearance Resolution, 2nd July, 1936, embraces 8 houses. In order to satisfactorily develop the areas the Director of Housing, under Section 3 of the Act, included 7 houses and 13 other premises, bringing the total number of dwellings within these areas to 15, having a population of 69. At the end of the year all the houses were still occupied.

Clearance Area 107, Ward 12.—This area, represented by the Medical Officer of Health, embraced 37 houses (including 1 voluntarily closed and unoccupied) and two other premises. The Slum Visitation Committee, when inspecting the locus, recommended that closing orders be applied, and the dwellings have since been dealt with as individual unfit houses in terms of Section 16 of the Act.

Clearance Area 108, Ward 6.—Represented by the Medical Officer of Health in 1935, embracing 15 houses (including 3 voluntarily closed and unoccupied) and 3 other premises. Total population in area, 42. The Corporation later agreed to substitute action under Section 16 of the Act instead of passing a Clearance Resolution.

Clearance Area 109, Ward 6.—This area was represented by the Medical Officer of Health in 1935, and embraced 35 houses (including 8 voluntarily closed and unoccupied) occupied by 97 persons. The Representation also included 13 other premises. The sub-committee when visiting the area departed from the proposed Clearance Area and recommended that all the houses be dealt with in terms of Section 16 of the Act.

Clearance Area 110, Ward 12.—Clearance Resolution, 1st October, 1936, embracing 24 houses occupied by 82 persons, was represented by the Medical Officer of Health during 1935, and in order to satisfactorily develop the area the neighbouring dairy premises were included under Section 3 of the Act by the Director of Housing. At the end of the year 22 families had been displaced leaving only 2 still in occupation.

Clearance Area 111, Ward 4.—Clearance Resolution, 1st October, 1936. Embraces 26 houses (including 2 closed by order, occupied) (3 closed by order, unoccupied) (4 closed by undertaking, unoccupied) and (1 voluntarily closed and unoccupied), and

1 other subject. In order to satisfactorily develop the area the Director of Housing included 1 store. There was no change in the position at the end of the year.

Clearance Area 112, Ward 8.—Clearance Resolution, 1st October, 1936, embraces 6 houses. At 31st December, 1937, 4 dwellings were still occupied.

Clearance Areas 113, 114, and 115, Ward 8.—Clearance Resolution, 1st October, 1936. Embraces 52 houses (including 14 unoccupied) and 5 other premises, and 1 house and 4 other premises included by the Director of Housing under Section 3 of the Act. At the end of the year 25 of the dwellings were unoccupied.

Clearance Areas 116 and 117, Ward 9.—Clearance Resolution, 1st October, 1936, embraces 29 houses occupied by 102 persons, and 8 other premises, 3 of which were included by the Director of Housing in terms of Section 3 of the Act. The position at the end of the year was unchanged, none of the families having been displaced.

Clearance Area 118, Ward 12.—Clearance Resolution, 9th November, 1936, embraces 23 houses with a population of 108. There were 5 families displaced at 31st December, 1937.

Clearance Area 119, Ward 11.—Clearance Resolution, 3rd December, 1936, embraces 28 houses (including 7 unoccupied) having a population of 73, including 3 houses added by the Director of Housing in terms of Section 3 of the Act. At the end of the year 5 of the families had been displaced.

Clearance Areas 120 to 131.

Clearance Resolutions passed by the Town Council during 1937.

Clearance Area 120, Ward 8.—Resolution dated 4th March, 1937. Embracing 22 houses (of which 2 were unoccupied), with a population of 70. 12 of the houses in the area were formerly dealt with under Section 16 as individual unfit houses. No alteration falls to be recorded at the end of the year.

Clearance Area 121, Ward 9.—Resolution dated 2nd September, 1937. Comprising 13 houses with a population of 28, and 3 shops. The position is unchanged at 31st December.

Clearance Area 122, Ward 9.—Resolution dated 2nd September, 1937. Embracing 38 houses with a population of 141, and 5 other premises (27 houses were included by the Director of Housing under Section 3 of the Act). The position is unchanged at the end of the year.

Clearance Area 123, Ward 9.—Resolution dated 2nd September, 1937. Embracing 67 houses with a population of 174 (8 of the houses being unoccupied) and 7 other premises, one of which was included by the Director of Housing under Section 3 of the Act. At the end of the year the position was unaltered.

Clearance Area 124, Ward 9.—Resolution dated 2nd September, 1937. Embracing 15 houses, with a population of 41, and 8 other premises, 2 of which were included by the Director of Housing under Section 3 of the Act. At 31st December, 1937, the position was unaltered.

Clearance Area 125, Ward 2.—Resolution dated 2nd September, 1937. Embracing 22 houses (of which 1 was unoccupied), with a population of 87, and 4 other premises. Of the above, the Director of Housing included 4 houses and 1 other premise. The position at the end of the year was unchanged.

Clearance Area 126, Ward 9.—Resolution dated 2nd September, 1937. Embracing 81 houses (of which 2 were unoccupied), with a population of 263, and 3 other premises. Of the above the Director of Housing included 16 houses and 2 other premises under Section 3 of the Act. 34 houses were formerly dealt with under Section 16 of the Act. The position at the end of 1937 was unchanged.

Clearance Area 127, Ward 3.—Resolution dated 2nd September, 1937. Embracing 260 houses (of which 5 were unoccupied), with a population of 1,000, and 45 other premises. Of the above, 18 houses and 39 other premises were included by the Director of Housing under Section 3 of the Act. No change falls to be recorded at the end of the year. Incidentally, this is the largest individual area ever represented in Dundee.

Clearance Area 128, Ward 8.—Resolution dated 7th October, 1937. Embracing 71 houses (of which 9 were unoccupied) and 11 other premises, with a population of 265. 33 of the houses were formerly dealt with under Section 16 of the Act as individual unfit houses. The position at the end of the year was unaltered.

Clearance Area 129, Ward 9.—Resolution dated 8th November, 1937. Embracing 66 houses (of which 1 was unoccupied), with a population of 272, and 6 other premises. Of the above, the Director of Housing included 7 houses and 3 other premises. The position was unchanged at the end of the year.

Clearance Area 130, Ward 9.—Resolution dated 8th November, 1937. Embracing 118 houses, with a population of 421, and 10 other premises; 8 houses and 1 other premise included by the Director of Housing under Section 3 of the Act. At 31st December, the position was unchanged.

Clearance Area 131, Ward 9.—Resolution dated 8th November, 1937. Embracing 124 houses (of which 10 were unoccupied) and 32 other premises. 26 of the houses were formerly dealt with under Section 16 of the Act. Of the above, the Director of Housing included 51 houses and 21 other premises under Section 3 of the Act.

Redevelopment Area.

The Corporation, at their meeting held on 3rd January, 1936, passed a resolution declaring that the area known as John Street Area be a redevelopment area. Embraced within this scheme are 476 houses (including 2 voluntarily closed and 2 combined shop-houses) with a total population at date of inspection of 1,861. 194 of the dwellings inhabited by 747 persons were considered as not being in all respects reasonably fit for human habitation, 62 of which, mainly attic and ground floor houses were dealt with individually in terms of Section 16.

On the 13th June, 1937, a joint report, prepared by the Town Clerk and the City Chamberlain, was submitted to the Housing and Factorial Committee. Incorporated in the report was a comparative statement showing the financial results of the proposed operation, and in view of the heavy capital expense involved in the carrying out of the scheme and also to the fact that 19 objectors had lodged petitions against the proposed Redevelopment Area

the Committee agreed not to proceed further with the scheme. This finding was later confirmed at a meeting of the Corporation on 21st June. The locus was on a later date revisited by the Slum Visitation Committee who recommended that two sections form the subjects of Clearance Resolutions and that certain other houses be dealt with individually in terms of Section 16 of the Housing (Scotland) Act, 1930, as amended by the Housing (Scotland) Act, 1935. The preparation of reports and representations thereanent was well in hand at the end of the year.

Insanitary Buildings.

Since 1924, the year in which the Post-War Housing Policy of the Council was inaugurated, 1,122 Reports and Representations have been submitted to the Local Authority in order to deal with uninhabitable, insanitary, and obstructive buildings, or areas.

The total number of houses has now reached 11,056 and the following tables show, in detail, the position as at 31st December, 1937.

REPRESENTED.

Year	No. of Representations	No. of Rooms				Total Houses	No. of other Premises
		1 Room	2 Rooms	3 Rooms	4 Rooms & over		
1924/25	17 & 1*	112	69	5	2	= 188	26
1926/30	237 & 19*	877	985	130	49	= 2,041	173
1931/35	310 & 119	1,860	2,171	255	81	= 4,367	371
1936	..... 242	1,039	1,063	100	23	= 2,225	...
1936	..... 10*	39	109	10	6	= 164	24
1937	..... 155	427	648	85	16	= 1,176	...
1937	..... 12*	267	531	72	25	= 895	134
	1,122	4,621	5,576	657	202	= 11,056	728

*Improvement or Clearance Area.

Of the 11,056 houses Represented or Reported :—

467 have been rendered fit under Repair Notices ;

234 have been rendered fit under Undertakings, etc. ;

while 3,194 houses, declared to be unfit are still in occupation as shown in the following table :—

	(a)										(b)					
	Number of Rooms.										Sizes of Houses Required to Accommodate families in (a).					
	1	2	3	4	5	6 & c.	Population	1	2	3	4	5	6			
Dealt with under Housing (Scotland) Act, 1925.																
Individual Houses, ..	5	6	1	1	—	—	29	8	4	1	—	—	—			
Housing (Scotland) Acts, 1950/1955.																
Individual Houses, ..	739	922	98	10	4	—	5,672	824	472	364	125	15	—			
Clearance Areas, ...	454	798	118	18	9	11	5,066	549	351	347	155	21	2			
	1,198	1,726	217	29	13	11	10,767	1,381	827	712	280	56	2			
	3,194							3,238*								

*Includes accommodation required for 44 sub-tenants.

Closing or Demolition Orders.

Section 16 (1).

150 Reports, involving 1,132 houses, were made to the Local Authority in terms of the above section, and were disposed of as follows :—

Demolition Orders were served upon the owners of 166 houses, viz :—

- 49 one-roomed houses;
- 97 two-roomed houses;
- 18 three-roomed houses; and
- 2 four or more roomed houses.

Closing Orders were served upon the owners of 146 houses, viz. :—

- 51 one-roomed houses;
- 79 two-roomed houses;
- 13 three-roomed houses; and
- 3 four or more roomed houses.

Appeals against Closing Orders, made by the Local Authority during 1937, numbered 5, embracing 68 houses, distributed as follows :—

- 27 one-roomed houses;
- 37 two-roomed houses; and
- 4 three-roomed houses.

Eighty-two Reports, involving 617 houses, await the consideration by the Local Authority, viz. :—

- 271 one-roomed houses;
- 306 two-roomed houses;
- 31 three-roomed houses; and
- 9 four or more roomed houses.

Eighteen owners gave undertakings not to re-let for human habitation until rendered fit for that purpose, 135 houses, viz. :—

- 28 one-roomed houses;
- 96 two-roomed houses; and
- 11 three-roomed houses.

Repair Notices.

SECTION 14.

Five Reports, involving 44 houses, were made to the Local Authority in terms of the above Section, viz. :—

- 1 one-roomed house;
- 33 two-roomed houses;
- 8 three-roomed houses; and
- 2 four or more roomed houses.

Reports Awaiting Consideration from 1936.

At the end of the previous year Reports and Representations submitted to the Local Authority, embracing 806 houses, were awaiting consideration. During the year under review 581 were dealt with as follows :—

548 houses and part of 1 house were closed under Section 16 as follows :—

- 118 one-roomed houses;
- 112 two-roomed houses;
- 10 three-roomed houses; and
- 2 four-roomed houses by way of **Demolition Orders.**
- 116 one-roomed houses;
- 140 two-roomed houses;
- 8 three-roomed houses; and
- 1 four-roomed house closed by **Closing Orders.**

In a 4-roomed house, 2 attic rooms were Closed by Order while the remaining 2 rooms on the first floor were the subject of a Repair Notice.

Letters of Undertaking were accepted on :—

- 17 one-roomed houses; and
- 24 two-roomed houses.

Repair Notices under Section 14 embraced 32 houses, made up as follows :—

- 3 one-roomed houses;
- 26 two-roomed houses; and
- 3 three-roomed houses.

One Report involving 2 houses was withdrawn.

In respect of 223 houses, also the subject during 1937 of Closing or Demolition Orders, the owners lodged appeals objecting to the findings of the Local Authority. The allocation of these dwellings is as follows :—

- 45 one-roomed houses ;
- 47 two-roomed houses ;
- 8 three-roomed houses ; and
- 1 four-roomed house, against Closing Orders ; and
- 77 one-roomed houses ;
- 43 two-roomed houses, and
- 2 three-roomed houses, against Demolition Orders.

Appeals Against Closing and Demolition Orders.

Of the appeals made by owners during the year involving 291 houses, the following is a summary of the position as at 31st Dec.-1937.

In 7 Reports, embracing 103 houses, proposals for reconstruction, etc., submitted by the owners of the properties, have been approved by the Housing and Factorial Committee, but in each case the judgment of the Court, in respect of a joint minute relating to the terms of the agreement, is awaited.

Two Reports, bearing on 53 houses and for which plans embodying reconstruction of the dwellings were before the Housing and Factorial Committee, await the approval of the Local Authority.

One Report, embracing 15 houses, for which plans, etc., were also lodged showing a scheme of reconstruction which was considered by the Housing and Factorial Committee but did not meet with approval. The plans and schemes were referred back to the owners for amendment.

No further action has been taken in regard to 7 Reports, covering 120 houses, since the owners lodged their appeals.

During the year an appeal against a Closing Order, covering 13 houses, was made by the owner of a property in Ward 6. Following the lodging of a Joint Minute in Court the Closing Order was confirmed by the Sheriff. At a later date the building was acquired by the Corporation.

Proof in an appeal in which the pursuers sought to recall, cancel and annul a Closing Order made during 1936 on two houses was heard in Court. The Sheriff refused the crave of writ and confirmed the Closing Order.

Summary in regard to Housing conditions and alterations during 1937.

I.—Particulars of Houses (281) Improved:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) At properties that had been "Closed by Order" for a period	8	12	3	—
(b) At instance of Sanitary Inspector, but not "reported" to Committee	6	33	3	5
(c) After Plans had been submitted to and approved of by the Works Committee	30	106	21	30
(d) Two or more houses made into one	11	2	—	1
(e) Houses divided and improved	—	—	2	8

II.—Other premises converted into dwelling-houses:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) 1 Warehouse	—	—	—	1

III.—New Houses completed and ready for occupation during the year:—

(a) Under the Corporation Housing Schemes.

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward III.—(a) Beechwood, 1st Dev. and (b) Balgay Road, ...	32	—	64	44
Ward IV.—Mid Craigie, 1st Dev. ...	—	36	60	48
Ward V.—Wolseley Street	32	—	24	—
Ward VIII.—Benvie Road	—	—	24	—
Ward X.—Queen Street, Bro. Ferry	—	—	12	—

Total Houses — 376.

(b) Private Enterprise.

	1	2	3	4	Rooms
	Room	Rooms	Rooms		& over
Ward 1	—	—	16	23	
Ward 3	—	—	11	17	
Ward 4	—	—	10	12	
Ward 5	—	12	12	5	
Ward 7	—	—	70	48	
Ward 8	—	—	6	9	
Ward 9	—	—	—	26	
Ward 10	—	—	20	4	
Ward 11	—	—	17	8	

Total — 326 houses.

Giving a grand total of 702 new houses erected throughout the year.

IV.—Particulars of dwelling-houses closed (489) for human habitation during the year 1937, in whole or in part and vacated:—

	1	2	3	4	Rooms
	Room	Rooms	Rooms		& over
(a) Voluntarily — houses generally in very bad repair, very damp, and not reasonably fit for human habitation	2	7	—	—	
(b) Converted into business premises, offices, shops or workshops, etc.	2	4	1	3	
(c) By absorption into other houses ...	11	3	2	9	
(d) Closed by Order or Demolition					
Order	20	89	4	4	
(e) Clearance Areas	147	128	9	1	
(f) Closed by Undertaking	26	15	2	—	
	—	—	—	—	
Total	208	246	18	17	

V.—Dwelling-houses Demolished (459) during the year 1937 :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) Dwelling-houses that had been Closed by Order or Demolition Order	20	70	4	2
(b) Dwelling-houses that had been Closed Voluntarily	2	1	2	7
(c) Clearance Areas	173	160	11	3
(d) Dwelling-houses that had been Closed by Undertaking	—	3	1	—
Total	195	234	18	12

In addition to the above, 75 other premises were demolished, viz. :—

6 Workshops	18 Stores	32 Shops
3 Garages	3 Clubrooms	4 Offices
1 Piggery	1 Smithy	2 Halls
	5 Stables	

VI.—Net Results for 1937 :—

The net result for the year is that there are only 256 more houses available for human habitation than at 31st December, 1937, i.e., houses of :—

1 Room	2 Rooms	3 Rooms	4 Rooms and over
141 less	182 less	337 more	242 more

VII.—The total number of Dwelling-houses (Private and Corporation) in course of erection (1013) — all stages — at 31st December, 1937, is as follows :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward 1	—	—	—	14
Ward 3	—	—	156	257
Ward 4	—	—	278	198
Ward 5	—	—	17	9
Ward 6	—	—	—	6
Ward 7	—	—	13	15
Ward 8	—	—	2	2
Ward 9	—	—	—	5
Ward 10	—	—	18	3
Ward 11	—	—	3	17
Total	—	—	487	526

VIII.—Estimated Number of Inhabited Houses excluding Institutions and other large establishments within the Burgh of Dundee as at 31st December, 1937—corrected (added to and deducted from). Based on Census Return of 26th April, 1931, viz. :—46,229 houses.

Year.	1 Room		2 Rooms		3 Rooms		4 Rooms and over		Total
	Add.	Deduct.	Add.	Deduct.	Add.	Deduct.	Add.	Deduct.	
From Census Return	6,347		22,252		10,405		7,225		46,229
	or 13.7%		or 48.2%		or 22.5%		or 15.6%		
1931 ...	—	27	—	4	286	—	54	—	309
1932 ...	—	105	31	—	328	—	87	—	341
1933 ...	—	213	—	116	387	—	183	—	241
1934 ...	—	175	—	4	240	—	94	—	155
1935 ...	—	67	—	11	292	—	183	—	397
1936 ...	—	172	42	—	464	—	263	—	597
1937 ...	—	141	—	182	337	—	242	—	256
	—	900	73	317	2,334	—	1,106	—	48,525

Thus giving at 31st December, 1937 :—

5,447	22,008	12,739	8,331
or 11.23%	or 45.35%	or 26.25%	or 17.17%

of which 4,046 are Owner Occupied, viz. :—

2	55	422	3,567
or .037%	or .25%	or 3.31%	or 42.82%

Overcrowding.

The demands that now beset us clearly indicate that many of our populace are fast becoming overcrowding-conscious—a state of mind which, up till recent years, could not be attributed to those of our community who were compelled to live under the degenerating conditions to which overcrowding contributes.

In pre-war years during the course of night inspections, it was fairly common to find additional members of families hidden in houses known to the householders to be overcrowded.

In those days the education of the masses in the connection of faulty housing with ill health was not a proven accomplishment, but to-day it is very evident that the persistent efforts of authorities engaged in the welfare of the community to enlighten the populace is fast bearing fruit.

This is clearly shown by the large number of personal calls made at the department invoking our assistance to ameliorate and improve their living conditions.

If they are tenants of houses which are Closed by Order, etc., overcrowding and ill health are taken into account, and the most pressing cases receive special consideration regarding re-housing which is accomplished on a pointage basis; if not, little can be done.

IX.—The Official Return submitted to the Department of Health for Scotland for the year ended 31st Dec., 1937, is :—

Housing (Inspection of District) Regulations (Scotland) 1928.

1. Number of dwelling-houses inspected*

(a) during the year	-	-	(a)	1936
(b) since 1st January 1931	-	-	(b)	8634

2. Number of dwelling-houses which, on inspection, were considered to be in any respect unfit for human habitation

(a) during the year	-	-	(a)	*2074
(b) since 1st January 1931	-	-	(b)	6504

* includes 758 houses inspected prior to 1937.

Burgh Police (Scotland) Act, 1892.

3. Number of houses in respect of which notice was given during the year under Section 246 requiring provision of a sufficient water-closet	Nil	Section 246 not adopted by this Burgh
4. Number of houses where requirements were complied with by owners during the year	Nil	
5. Number of houses where works carried out by Town Council during the year after failure of owners to do so	Nil	
6. Number of houses for which water-closets were provided during the year at instance of Town Council without formal notice under Section 246	*284	
*Includes 157 within houses.		

7. Number of houses in respect of which notice was given during year under Section 246 requiring provision of inside water supply and sink	Nil	Section 246 not adopted by this Burgh
8. Number of houses in which requirements were complied with by owners during year	Nil	
9. Number of houses in which works carried out by Town Council during year after failure of owners to do so	Nil	
10. Number of houses in which inside water supply and sink were provided during year at instance of Town Council without formal notice under Section 246	46	

Housing (Scotland) Act, 1925.

11. Number of houses of (a) one apartment, and (b) two apartments, for the erection of which the consent of Town Council was given in terms of Section One Hundred and Eleven	(a) Nil. (b) Nil.
---	----------------------

Housing (Scotland) Act, 1930.

12. Number of dwelling-houses in respect of which notices were served during year under Section 14 (1)†	-	44
13. Number of dwelling-houses rendered fit for human habitation during year following on notices under Section 14 (1)†	- -	Nil.
14. Number of dwelling-houses in respect of which work has been done during year by Town Council under Section 15 (1).	-	Nil.
15. Number of dwelling-houses in respect of which, in terms of Section 17, a demolition order or closing order under Section 16 (3) has been substituted during year for a notice under Section 14 (1)	- - -	4
16. Number of dwelling-houses in respect of which notices were served during year in terms of Section 16 (1)	- - -	1381

17.	Number of dwelling-houses in respect of which, following on notice under Section 16 (1) :—	
	(a) undertaking has been given during year that the house will not be used for human habitation until it has been rendered so fit -	219
	(b) undertaking has been given during year that house will be rendered fit - - -	7
	(c) demolition orders have been made during year under Section 16 (3)† - - -	509
	(d) closing orders have been made under Section 16 (3) and (4) - - -	646
18.	Number of dwelling-houses rendered fit during year following on undertakings under Section 16 (2) - - -	23
19.	Number of dwelling-houses rendered fit for human habitation during year at instance of Town Council without formal notice under Housing (Scotland) Act, 1930 - - -	Nil.
20.	Number of dwelling-houses in respect of which closing orders have, in terms of Section 16 (3), been determined by Town Council during year following upon houses having been rendered fit for human habitation - - -	Nil.
21.	Number of houses in respect of which advances have been made during year in terms of Section 34 towards cost of repairs and amount so advanced - - -	Nil.

*Houses inspected more than once should be entered only once.

†If action for repair of houses has been taken under other Powers please state these Powers and number of houses dealt with.

†If permission to reconstruct a building has been granted, the number of houses existing prior to the reconstruction should be stated (see in this connection, sub-section (3) of Section 49 of the Housing (Scotland) Act, 1930).

Note.—Any general information or observations as to the character of defects usually found to exist, as to the extent to which overcrowding was found to prevail and the steps taken to remedy it, or as to the work of inspection generally, should be entered in the space below :—

Inadequate lighting and ventilation; dampness in houses, houses not provided with sinks and inside water supplies; insufficient water closet accommodation; want of suitable storage for foodstuffs and fuel; insufficient refuse storage accommodation; lack of facilities for the washing and drying of household and wearing apparel; and open spaces around buildings restricted.

Overcrowding is still prevalent within the City, and only in respect of families rehoused from insanitary and unfit dwellings has any known material change occurred throughout the year. A pointage system is in operation whereby the families living under the worst conditions are rehoused first.

The Rent and Mortgage Interest Restrictions Acts, 1920 to 1935.

Year	BY TENANTS.			BY OWNERS.		
	No. of Applications	Granted	Refused	No. of Applications	Granted	Refused
1920/25	116	102	14	1	1	—
1926/30	42	36	6	9	8	1
1931/35	1111	1011	100	324	317	7
1936	324	300	24	52	51	1
1937	169	135	34	91	91	—
	1762	1584	178	477	468	9

During the year applications totalling 169 were received from tenants requesting that Certificates be granted owing to their houses being in a state of disrepair, and in 135 cases the requests were agreed to. The refusals, amounting to 34, related to houses where the repairs necessary were of a very trivial nature and were remedied forthwith by the factors.

Common Lodging Houses.

At the close of the year there were on the Departmental Register four Common Lodging-Houses capable of accommodating the undernoted :—

	Male Lodgers
55 Commercial Street,	236
3/5 Craig Street	137
25 North Lindsay Street	56
67 Cowgate,	19
	<hr/>
	448

In the Report for 1936 it was remarked that several Common Lodging-Houses had been dealt with under the Housing Acts. Our depleted number of this type of house, except in one instance where a keeper owing to lack of patronage gave up one of his places, is the outcome of such action.

The premises so dealt with have all been vacated excepting one where women lodgers are housed and for whom there is some difficulty in finding suitable alternative accommodation. The house in question is regularly inspected and maintained in a clean and efficient manner.

It will be observed from the above table that there is no longer a registered Common Lodging-House catering for female lodgers, but the Salvation Army Home and Metropole for Women provides excellent accommodation for 131 females. The nightly charges are 6d for a bed in a dormitory and 8d and 1s for cubicles, while board and lodging may be obtained at a weekly rate of 10s, 11s and 12s 6d according to the sleeping accommodation.

Inspections throughout the year totalled 420 — 413 by day and 7 by night, and the manner in which the businesses were conducted calls for no adverse criticism.

THE SEAMENS' BOARDING HOUSE (DUNDEE SAILORS' HOME AND HOSTEL) and the SALVATION ARMY HOME AND METROPOLE FOR WOMEN are well kept—clean and comfortable, the former also being available for commercial “boarders.”

Houses Let in Lodgings.

These premises, numbering 94 at the end of the year, are the recipients of continual inspection, 390 visits in all having been made over the year, 389 during the day and 1 by night. On the whole they have been kept satisfactorily, but the position regarding a number is somewhat complicated, being in all but name Common Lodging-Houses. It is the charge alone which precludes them from officially coming within the latter category.

These require constant supervision, and needless to say it is given.

The keeper of a house let in lodgings, despite official warnings, both written and oral, persisted in permitting a room registered

solely as a kitchen to be used for sleeping purposes. Realising that conciliatory methods were to be of no avail it was decided to let the law take its course. He duly appeared before the Court, and a fine of 10s was imposed.

Tents and Vans.

To the above 88 visits of inspection were made.

Unsuitable camping grounds invariably result in a nuisance in some form or other, and during July complaints were received regarding a colony of tents on Corporation ground in the west end of the City. The campers were mostly birds of passage, merely staying a night or two and moving on, leaving behind them an unsightly assortment of refuse. This particular site, while perhaps being desirable as a camping place, did not possess any facilities for refuse disposal nor was it provisioned with sanitary conveniences or water supply. The matter was brought to the notice of the appropriate Department and no further permits were issued.

Nuisance by the hawker inhabitants of a caravan was notified to us. The van was located on ground where there was neither water-closet accommodation nor water supply. The owner of the land was cautioned and instructed to get the caravan off his premises, and this was done within a few days.

Throughout the winter we had two sites on which caravans were stationed; these were equipped with sanitary conveniences and water supply, and on the weekly inspections everything was always found in order.

Housing of Seasonal Outworkers.

The position regarding this class of worker still remains unchanged, those who undertake work of this nature are afforded means of transport between their homes and work each day.

Factories and Workshops.

The accompanying tables gives the number of Workshops, etc., on the Register as at 31st December, 1937, and also sets forth the nature of the businesses carried on.

During the year such premises were subject to routine visits which numbered 1,206, and where nuisances were discovered they

were at our request immediately abated. The object of this systematic inspection is to secure that the working conditions for the employees are as clean and healthy as the trade permits.

The Factories Act, 1937, becomes operative as and from the first day of July, 1938.

In a guide to this Act issued by the Home Office there is a foreword by Sir Samuel Hoare which says:—

“ The Factories Act of 1937 is an important milestone on the road to safety, health and welfare in industry. It marks the notable progress made in the last 36 years, leaving far behind it the Act of 1901 which will disappear next year from our factory law, and showing in its up-to-date provisions what should now be done to secure a further reduction in the toll of accidents and sickness, and a general advance in the conditions of factory life. So great a measure is necessarily long and complicated, covering as it does a wide variety of operations, and applying both to large undertakings and to the smallest concerns.”

While the new Act will, in the main, be administered by H.M. Inspectors of Factories, certain important duties relating to the heating, ventilation, provision of sanitary conveniences, etc., in factories are placed on Local Authorities, and in future inspections special attention will require to be given to these matters.

Throughout the year 37 Intimations were received from H.M. Inspector of Factories to the effect that he had served Notices relating to:—

No.	Nature of Defect.	Improvements Effected.
3	Lack of Cleanliness	In 3 cases
1	Overcrowding	In 1 case
19	Insufficient Water-Closet Accommodation	In 6 cases
9	Unsuitable Water-Closet Accommodation	In 8 cases
5	No separate Accommodation for Sexes ...	In 2 cases

The following Workshops, etc., are upon the Register at 31st December, 1937 :—

TRADE OR BUSINESS.	Workshops	Domestic Workshops	Homework	Workplaces
Blacksmiths, Cartwrights and Carriage Builders	13	1	0	0
Boot Repairers	65	5	0	0
Cabinetmakers, Joiners, and French Polishers	54	0	0	0
Cycle and Motor Mechanics, Enamellers and Vulcanisers	43	0	0	1
Dental Mechanics	34	7	0	0
Dress, Mantle, and Corset Makers	42	10	0	0
Engineers	24	0	0	0
Electro - Platers, Wire Workers, Blind Makers and Bellhangers	3	0	0	0
Florists	0	0	0	26
Furriers	6	1	0	1
Granite and Marble Cutters, and Masons	0	0	0	27
Hairdressers and Wigmakers	2	3	0	145
Hotels and Restaurants	0	0	0	36
Milliners	26	1	0	1
Painters	6	0	0	50
Photographers	7	0	0	2
Piano and Gramophone Repairers	6	0	0	0
Picture Framers, Gilders, and Glaziers	10	0	0	0
Plasterers	0	0	0	25
Plumbers and Tinsmiths	47	0	0	0
Saddlers and Leather Cutters	6	0	0	0
Slaters	0	0	0	26
Stamp Cutters, Engravers and Ticket Writers	5	0	0	0
Sugar Boilers	6	0	0	0
Tailors	42	11	1	0
Umbrella Makers and Repairers	5	0	0	0
Underclothing, Baby Linen, and Blouse Makers, Hosiers and Knitters... ..	21	1	0	0
Upholsterers and Carpet Sewers	12	0	0	0
Waste, Rag and Metal Merchants	6	0	0	8
Watch and Jewellery Repairers and Opticians	39	2	0	1
Miscellaneous, i.e., Gut Manufacturer, Mica Makers, Clay Pipe Makers, Paper Bag Makers, Bottlers, Potted Meat Manufacturers, Oil Refiners, Manufacturing Chemists, Sack Repairers, Laundries Basket Makers, Brush Makers, Scale Makers, etc.	59	1	0	19
	587	43	1	366

Bakehouses.

The following bakehouses are upon the Register :—

Occupied factory bakehouses,	55
(Included in this number are 8 underground).	
Occupied workshop bakehouses,	39
(Included in this number are 3 underground).	
Bakehouses, empty,	6

During the year three bakehouses were added to the Register, all of which were examined and sanctioned as suitable.

The business of baking is frequently carried on in conjunction with a retail shop, the rear premises serving as the bakehouse. Generally the rooms in which the baking is done are small and, though clean, lack the attractive appearance which more space would bestow. This is a type of business carried on by the "small man," and although established and in many cases doing well, he seems to follow the ca' canny policy in regard to moving to more commodious premises.

Bakehouses within the city were visited on 830 occasions. While these businesses are well conducted and maintained in a clean manner, it was necessary to draw attention to defects on 65 instances, all of which were immediately rectified.

Alterations carried out at a bakehouse included the underlining of the entire roof with timber and the provision of 6 additional opening rooflights—a great improvement, the benefits of which are much appreciated by the workers. In connection with the same establishment a garage was reconstructed for use as a dispatch room and a bread-cutting machine installed.

One baker, at the instance of H. M. Inspector of Factories, was prosecuted for the condition in which he kept the floor of his premises. For this and another offence a fine of £2 and 11s 6d expenses was levied.

FOOD INSPECTION

Shops, Stalls, Barrows, Etc.

The following table gives details of the weight and nature of the foodstuffs destroyed, usually at the Corporation destructor after condemnation by our Inspectors.

ARTICLES OF FOOD SEIZED.

ARTICLES.	WHERE SEIZED.	QUANTITIES OR WEIGHTS.				REASONS FOR SEIZURE.
		Tons.	Cwts.	Qrs.	Lbs	
Roast Duck (tinned) ...	Shops, or stalls, or barrows on streets, or food or wholesale stores, or railway stations.	0	0	2	3	Decomposition, etc.
Spiced Ham ...		0	8	0	11	
Mutton (tinned) ...		0	1	1	10	
Milk (tinned) ...		0	1	1	19	
Beef (tinned) ...		0	4	3	15	
Fruit (tinned) ...		1	2	2	24	
Eggs (tinned) ...		0	1	2	18	
Jellied Veal, etc. (tinned)		0	7	3	4	
Chicken and Ham Roll, etc.		0	1	3	10	
Fish (tinned) ...		0	1	0	7	
Tongue (tinned) ...		0	0	3	6	
Vegetables (tinned) ...		0	0	0	5	
Peas, Beans, Tomatoes etc. (tinned)		0	5	3	9	
Pork ...		0	0	0	6	
Vegetables ...		5	0	2	0	
Luncheon Meat ...		0	1	1	23	
Fruit ...		0	2	0	4	
Soup (tinned) ...		0	0	0	1	
Tomato Puree ...		0	1	1	17	
Rabbit (tinned) ...		0	0	0	2	
Fruit Pulp (tinned) ...		0	0	2	4	
Miscellaneous ...		0	0	0	22	
Smoked Fish etc.		0	0	2	27	
Tomato Extract ...		0	3	0	3	
Venison ...		0	1	0	6	
Meat Galantine, etc. ...		0	0	3	2	
Nuts ...		0	0	2	4	

Tinned foods again predominate; it is well that holders of such stocks continue to rely on the facilities offered by the Department when doubt is raised regarding the condition of any of their goods. Such precautions are very necessary, and their use, while saving trouble with customers returning goods which they cannot consume, also lessens the chances of outbreaks of food poisoning.

When stocks of grocery goods are exposed for sale by auction we call at the place of sale and advise the auctioneer as to their fitness or otherwise.

Our activities under this head also include the regular inspection of fish as supplied to the Hospitals, etc., under the control of the Local Authority. In the autumn the House Steward of one of the Institutions forwarded for examination a piece of cod fillet, the flesh of which was infested with nematodes. An authority on zoology described the specimens as larval forms of a type very common in marine fish. The stage was difficult to identify, or, rather, rendered identification difficult, but they could very well be

classified as *Porrocaecum decipiens*—the commonest form. The adult is a parasite of seals. Fish thus afflicted are extremely undesirable as a foodstuff and, needless to say, the stock in question was all destroyed.

Towards ensuring a pure food supply, not merely a desirability but a necessity, 3,312 visits of inspection were made.

The Public Health (Meat) Regulations (Scotland), 1932— Article 15.

Two certificates were granted in terms of the above Regulations to persons selling, or offering or exposing for sale meat or meat food products from off a van or other vehicle, etc., approving of the storage accommodation.

The Public Health (Imported Food) Regulations (Scotland), 1937.

The Public Health (Imported Food) (Amendment) Regulations (Scotland), 1937.

The above regulations, which become operative on 1st April, 1938, place stringent measures on the import of food.

It is necessary for foodstuffs arriving from overseas to be accompanied by an Official Certificate approved of by the Department of Health for Scotland stating that the goods to which it is applicable have been examined and found fit for human consumption. It is also incumbent to state that the foodstuff has been prepared and packed in a manner calculated to ensure the absence of danger to the consumers.

FOODSTUFFS ARRIVING AT THE PORT OF DUNDEE, EITHER DIRECTLY FROM ABROAD OR BY COASTWISE TRAFFIC.

The following two tables show the kind and quantity of foods arriving by waterway at the Port during the year.

The total is 63,908 tons 16 cwts. 1 qr., as against 65,125 tons 10 cwts. 2 qrs. last year, and 51,153 tons 12 cwts. 0 qrs. in 1935.

TABLE No. I.

Shows the foodstuffs arriving coastwise at the Port by steamers plying between Dundee and the Ports of London, Hull, Liverpool, Aberdeen, Newcastle, Belfast, Southampton, Leith, etc.

	Tons.	Cwts.	Qrs.
Baking Powder	5	0	0
Bacon and Ham	7	18	0
Biscuits	179	15	0
Bran	32	13	2
Butter	68	8	1
Cereals	374	6	1
Cheese	298	14	0
Baking Oil	151	4	2
Cordials, Cider, &c.	38	6	0
Cocoa and Cocoa Beans	80	18	0
Cocoa Butter	4	0	0
Cocoanuts	20	2	1
Cocoanut Oil	6	5	2
Coffee	48	10	3
Confectionery	685	1	3
Cream of Tartar	119	5	3
Custard Powder	22	19	2
Eggs	6	5	1
Fish (Dried)	88	18	0
Fish (Tinned)	61	8	3
Flour	1,208	13	0
Fruit	1,515	9	3
Fruit (Dried)	415	19	2
Fruit (Pulp)	70	14	1
Fruit (Tinned)	522	1	1
Glucose	360	13	0
Lard and Lard Compound	668	17	2
Macaroni	1	14	2
Margarine	998	4	2
Meat Extract	40	14	2
Meat (Tinned)	133	14	3
Milk (Dried)	3	5	0
Milk (Tinned)	218	6	2
Nuts	29	8	3
Pork and Beans	28	10	0
Peas, Beans, &c.	8	10	3
Honey, Jams, &c.	1	5	0
Pickles, Spices, Condiments and Sauces	85	6	2
Preserves	70	7	0
Rice	142	10	3
Salt	10	1	0
Suet	0	1	2
Sugar	753	6	2
Syrup	604	6	2

					Tons.	Cwts.	Qrs
Tapioca	...	...	...	...	46	5	1
Tinned Soup	...	...	...	...	193	3	0
Treacle	...	...	...	...	400	12	0
Vegetables	...	...	...	...	608	13	0
Vegetables (Tinned)	...	...	...	...	3	19	1
Vinegar	...	...	...	...	0	5	0
					11,445	0	3

TABLE No. II.

Shows the amount and kind of foods arriving direct from abroad.

					Tons.	Cwts.	Qrs
Butter	...	...	...	...	40	11	0
Cereals	...	...	...	...	336	10	2
Cheese	...	...	...	...	304	18	3
Cream of Tartar	...	...	...	...	0	4	0
Cocoanuts	...	...	...	...	14	12	1
Cocoa Butter	...	...	...	...	44	11	2
Confectionery	...	...	...	...	0	12	0
Flour	...	...	...	...	10,296	13	3
Fruit	...	...	...	...	4	5	1
Fruit Dried	...	...	...	...	29	1	0
Fruit (Pulp)	...	...	...	...	104	12	0
Fruit (Tinned)	...	...	...	...	52	5	2
Glucose	...	...	...	...	818	12	1
Fruit Juice	...	...	...	...	1	10	0
Lard	...	...	...	...	28	15	1
Macaroni	...	...	...	...	6	17	1
Meat (Tinned)	...	...	...	...	45	15	1
Milk (Dried)	...	...	...	...	3	16	1
Milk (Tinned)	...	...	...	...	357	1	1
Peas, Beans, &c.	...	...	...	...	27	1	1
Pickles, Spices, &c.	...	...	...	...	273	2	2
Pork and Beans	...	...	...	...	163	4	2
Salt	...	...	...	...	10	15	0
Ground Rice	...	...	...	...	68	7	0
Soup Tinned	...	...	...	...	202	11	0
Sugar	...	...	...	...	38,047	2	1
Vegetables	...	...	...	...	1169	0	1
Vegetables (Tinned)	...	...	...	...	11	8	3
					52,463	15	2

No conditions were evident to justify the retention of any of the foodstuffs arriving by waterway.

Fish Inspection at the Fish Market, Carolina Port.

No necessity arose during the year for the seizure of any of the fish arriving at the fish dock, neither was there any call for Departmental activity in regard to the premises.

Public Slaughter-House, Meat and Cattle Market.

The undernoted table (kindly supplied by the Superintendent of Markets and Slaughter-Houses) gives the number of animals slaughtered and particulars of meat found to be unfit for human consumption.

Class of Animal	Slaughtered.	Number of Animals.		Weight (in lbs.) of condemned Meat.
		Wholly Condemned.	Partially Condemned.	
Cattle,	15,565	273	4,889	246,230
Sheep,	24,646	70	1,350	4,764
Pigs,	4,650	38	343	7,156

Note.—Calves are included as Cattle.

Number of Carcases stored in Chilling Chambers during the Summer Months of 1937.

Cattle Sides.	Cattle Legs.	Calves.	Sheep,	Pigs,	Sundries.
9,513	1,251	15	3,059	600	1,920

There are no Private Slaughter-Houses Within the City.

The Slaughter-House, Meat Market and other premises incidental to the business are in a satisfactory condition and kept in a cleanly state.

Merchandise Marks Act, 1926, and Agricultural Produce (Grading and Marking) Act, 1928, Etc.

An unremitting vigilance is sustained in order to assure ourselves that the terms of these acts are receiving due attention by shopkeepers, etc., 756 visits being made for this purpose.

The commonest pitfall is the improper description applied to tomatoes. This may be classified as a petty offence, due more to ignorance or carelessness than design, and is remedied forthwith on notice being directed to the matter. All persons in the city selling tomatoes were circularised and their attention drawn to the terms of the Merchandise Marks (Imported Goods) No. 4 Order, 1929. The information in the circular clarified many points which may have been obscure to shopkeepers; if they follow its advice tomatoes will cease to possess their present notoriety so far as the Merchandise Marks Act is concerned.

The Merchandise Marks (Imported Goods) No. 1 Order, 1932, relates to the marking of butter. Article 5 gives the seller the choice of various manners of describing the origin of the goods. Unfortunately the last option "Including imported butter," would cover any interpretation a person cared to construe—as witness the introduction of 2 lbs. of home butter into 112 lbs. of foreign butter. Yet the description might legally be said to be correct, whereas a purchaser would naturally infer the mixture contained a more generous proportion of home produce.

Again we are faced with the practice of using milk bottles belonging to other firms. Not only has the Department warned all engaged in the milk trade against the habit, but certain firms have intimated through the press their intention of prosecuting persons so doing.

A dairyman and his servants were well warned by the Inspectors of the risk they ran, but it was all to no purpose. Eventually, being found with a large quantity of bottles (belonging to various firms) in his handbarrows and delivery cycle it was decided that the time for warnings was past and he was informed of our intention to prosecute. The Board of Trade sanctioned the reporting of the particulars to the Procurator Fiscal and in terms of Section 2 (1) (d) and (2) of the Merchandise Marks Act, 1887, he was charged with applying a false trade description to the goods sold. He pled "Not Guilty," but at the subsequent trial a penalty of £3 or 10 days was imposed.

That others are making use of their bottles may explain these actions but it in no way excuses them, for, as already stated, warnings in plenty have been issued.

The premises of the Dundee Ice and Cold Storage Co., Ltd., situated in Trades Lane, are the only premises within this area registered in terms of Art. 4 (1) of the 1928 Act, and Art. 7, Agricultural Produce (Grading and Marking) Eggs (Scotland) Regulations, 1929.

The Public Health (Preservatives, Etc., in Food) Regulations (Scotland) 1925 to 1927.

Mince.—23 Samples (18 Official and 5 Test) were purchased during the year and of these 8 Official and 2 Test were reported by

the Analyst to contain sulphur dioxide in a quantity exceeding that allowed by the Regulations.

In 7 instances the adulteration of the official samples was reported for prosecution with the undernoted results:—

2 were fined 15s each.

2 were fined 30s each.

3 were fined 40s each.

And in the case of the eighth official sample a very severe warning was issued, and it is confidently felt that in future the most meticulous care will be employed so as to ensure the dictates of the law are observed. Of the Test Samples of Mince which proved to be adulterated, one was followed by the purchase of an official sample which also contained an excess of preservative, and is included above among the cases prosecuted. The other infringement earned for the perpetrator a warning calculated, it is hoped, to prevent further misdemeanour.

Sausages.—15 Samples (10 Official and 5 Test) of Sausages (including Lorne Sausage) were forwarded to the Analyst, all of which were returned “Genuine.”

Food and Drugs (Adulteration) Act, 1928.

Undernoted I give a statement of the number of samples purchased under these Acts during the last ten years:—

		Certified to be		
		Purchased.	Genuine.	Adulterated.
1928	...	669	637	32
1929	...	674	630	44
1930	...	635	600	35
1931	...	654	618	36
1932	...	637	606	31
1933	...	638	611	27
1934	...	603	583	20
1935	...	632	607	25
1936	...	628	598	30
1937	...	637	600	37

SYNOPSIS OF THE SAMPLES PURCHASED THIS YEAR:—

I.—Samples taken in the ordinary course, with a view of following up by prosecution, if necessary, should adulteration be discovered.

			Purchased.	Certified to be	
				Genuine.	Adulterated
Sweet Milk ...			175	157	18
Do. (Pasteurised) ...			2	2	—
Do. (Sterilised) ...			3	3	—
Do. (Certified) ...			15	15	—
Do. (T.T.) ...			5	5	—
Margarine ...			11	11	—
Coffee ...			8	8	—
Whole Rice ...			8	8	—
Ground Rice ...			3	3	—
Barley ...			2	2	—
Lard ...			1	1	—
Sausages ...			8	8	—
Lorne Sausage ...			2	2	—
Jellied Veal ...			1	1	—
Mince ...			18	10	8
Pepper ...			10	10	—
Cream of Tartar ...			7	6	1
Ground Ginger ...			2	2	—
Tapioca ...			2	2	—
Butter (Salt or Fresh) ...			11	10	1
Jams ...			2	2	—
Vinegar ...			1	—	1
Cheese ...			1	1	—
Tinned Peas ...			1	1	—
Mustard ...			1	1	—
Essence of Coffee ...			1	1	—
Camphorated Oil ...			1	1	—
Total ...			302	273	29

II.—The following samples were taken in terms of Section 8 (1) (c) of the 1928 Act:—

	Taken	Genuine	Adulterated
Sweet or Fresh Butter.....	8	8	0

III.—The undernoted “ test ” samples were purchased or taken:—

	Purchased or Taken	Certified to be	
		Genuine	Adulterated
Sweet Milk	24	24	—
Do. (T.T.).....	3	3	—
Do. (Certified)	1	1	—
Sugar	1	1	—
Curry Powder	1	1	—
Cream and Cream (Tinned) ...	8	8	—
Milk (Tinned)	19	19	—
Tapioca	1	1	—
Margarine	18	18	—
Coffee and Coffee Essence ...	6	6	—

	Purchased or Taken	Certified to be Genuine	Adulterated
Whole Rice	10	10	—
Ground Cinnamon	8	8	—
Corn Flour	1	1	—
Sago	6	6	—
Vinegar	4	3	1
Pepper	14	14	—
Pot Barley	7	7	—
Cream of Tartar	10	10	—
Ground Ginger	8	8	—
Baking Soda	4	4	—
Ground Rice	9	9	—
Flour	6	6	—
Oatmeal	7	7	—
Butter (Salt and Fresh) ...	14	14	—
Lard, Dripping, etc.	10	10	—
Jaffa Juice	1	—	1
Syrup and Treacle	2	2	—
Mince	5	3	2
Sausages	3	3	—
Do. Lorne	2	2	—
Honey	1	1	—
Meat Paste, etc.,	6	6	—
Goat Milk	1	1	—
Lemon Curd	4	4	—
Tomatoes, etc. (Tinned)	3	3	—
Cocoa	3	3	—
Custard Powder	3	3	—
Mustard	3	3	—
Jam	3	3	—
Cheese	3	3	—
Semolina	2	2	—
Cordials	2	2	—
Olive Oil	3	3	—
Tinned Peas	2	2	—
Tartaric and Citric Acids	2	2	—
Soup (Tinned)	1	1	—
Mixed Spice, Cut Peel, Raisins etc.	6	6	—
Castor Oil	2	2	—
Spaghetti	1	1	—
Table Jelly	4	4	—
Baked Beans	2	2	—
Tinned Sardines, Salmon, Sild etc.	15	15	—
Tinned Beer	1	1	—
Pickles etc.	7	7	—
Tinned Fruit	6	6	—
Camphorated Oil	6	3	3
Pork and Beans	1	1	—
Malted Milk	1	1	—
Blackcurrant Pulp	1	—	1

Fish Pastes, etc.	10	10	—
Pharmaceutical Preparations, etc	9	9	—
	<hr/>	<hr/>	<hr/>
Total	327	319	8
Add Table I.....	302	273	29
Add Table II.	8	8	—
	<hr/>	<hr/>	<hr/>
Total	637	600	37

With a population of 177,711, this works out to 3.58 samples for every 1,000 persons, as against 3.51 last year.

The average milk fat of the samples taken each month (other than those taken at Institutions) was as follows:—

	No. of Samples Purchased.	Average Fat.
January	16	3.58
February	14	3.64
March	18	3.56
April	15	3.34
May	17	3.58
June	16	3.66
July	17	3.63
August	19	3.51
September	16	3.75
October	16	3.72
November	18	3.48
December	18	3.77
	<hr/>	<hr/>
	200	3.60

The lowest milk fat recorded this year in **official samples** was 2.42 per cent. and the highest 7.12 per cent. The number of samples with milk fat below 3 per cent. was 7, and the number of samples with milk fat of 4 per cent. and over was 28.

Test samples of milk as supplied to King's Cross Hospital, the Infant Hospital and Armitstead Convalescent Home were submitted on 27 occasions, and the results as declared by the City Analyst were as follows:—

King's Cross Hospital:—

23 Samples of Sweet Milk averaged 3.73 per cent. of fat.

The highest fat content was 4.25 per cent. and the lowest 3.00 per cent.

Infant Hospital, Broughty Ferry :—

3 Samples of T.T. Milk were tested and reported to have an average fat content of 4.26 per cent.

Armitstead Convalescent Home :—

1 sample of Certified Milk contained 4.10 per cent. of Butter Fat.

Eighteen official samples of sweet milk failed to reach the standards demanded by the Sale of Milk Regulations, 1901—3 were under the necessary 3% of milk fat, 11 were short of the minimum of 8.50% for non-fatty solids, and 4 samples were deficient in both milk fat and non-fatty solids. Two prosecutions were instituted—one seller was fined 20s; the other, found guilty, but admonished.

Three cases related to milk from a herd of Canadian Friesian cows which are known to be prolific milkers but notoriously poor in quality. Three other samples to which the freezing test was applied revealed no added water.

One sample, deficient in not-fatty solids was followed by the sampling of supplies on arrival from the country. This sample was likewise weak. The producer was approached; he had all his cows sampled and the aggregate analysis of the milk, both before and after passing through the cooler, was highly satisfactory.

The outcome of one sample was rather interesting (a deficiency in non-fatty solids) which was attributable to the excessive frost experienced in December. The milk in question came by road for a distance of roughly sixty miles, arriving here about 3 a.m. and lying in the open till 5 a.m. The elements were the cause of the havoc in the sample taken. In partially frozen milk the frozen part after thawing has properties and composition resembling those of watered milk. The solids, not fat, are low. The fat is normal or may be high. In the unfrozen part the fat is often lower than normal and the solids which are not fat are high. Completely thawed and well mixed milk is normal.

The purveyor at this end was warned and advised if again confronted with such a situation, to thaw and thoroughly mix the milk before delivery or exposure for sale.

The remaining cases, which included one of improper mixing (when the frost was again a contributory factor) were all warned, and on one occasion the milk salesman was left to take the matter up with the Milk Marketing Board.

While on the subject of milk samples, it is thought meet to mention a special sample (test) taken consequent upon a complaint received relative to milk being coloured. The hue of the milk at once suggested blood, and enquiries were set in motion forthwith. The milk was produced in the county, but the premises were, relatively speaking, only a stonethrow from the city boundary. The producer's wife was interviewed and instantly admitted one of the cows had a damaged udder. She was advised to cease selling this cow's milk until a report on the examination of the sample had been obtained, which she readily consented to do. The report submitted by the bacteriologist stated, *inter alia*, "the deposit did not contain pus cells nor were they able to demonstrate micro-organisms, the blood was bright red and due to some small surgical lesion in the udder."

The county authorities were apprised, and in turn notified us that the cow was withdrawn from the herd.

Regarding other official samples which were adulterated: these were Butter containing water to the extent of 0.50% above the maximum standard under the Sale of Butter Regulations, 1902. A warning was considered sufficient to meet the needs of this case. A Vinegar containing 8 parts copper per million parts vinegar; the stock was returned to the wholesalers. This was the outcome of the test samples referred to later on. Cream of Tartar—reported as impure due to the presence of baking soda to the quantity of 11.20%. The seller was warned, and, in the presence of an Inspector, destroyed the remainder of the stock.

Test Samples.

The undernoted samples proved to be adulterated or not in keeping with the prescribed standards.

Vinegar.—A sample obtained from a small retailer was returned by the Analyst as containing 18 parts copper per million parts sample, and consequently came under the "not genuine" category. Two samples obtained from the wholesaler were returned "genuine." The retailer's stock was returned to the supplier.

Camphorated Oil.—Of the 6 samples taken 3 were reported to be deficient in camphor to the extent of 2.97%, 17.70% and 18.19% respectively. When the result of the analysis of the first sample was known, enquiries as to where the supply was derived were set in motion and the wholesaler's stock sampled. It, too, was found to be below the B.P. requirement. The Manufacturers were in turn communicated with but were unable to account for the shortages, taking, they said, every precaution possible in the manufacture of their goods so as to eliminate any chance of offence. In this instance also the supplies were returned to the makers.

Black Currant Pulp.—Notification of the arrival in this City of a consignment of black currant pulp which was known to contain sulphur dioxide beyond the amount permitted by the Public Health (Preservatives, etc., in Food) Regulations (Scotland) 1925/27 was received. The sample procured revealed the presence of the preservative to the extent of 1995 parts per million, i.e., 495 parts beyond the stipulated quantity. This pulp, before being made into jam, was mixed with pulp which had been in stock—the preservative content of which was well under the legal amount. The jam resulting from the mixture gave an analytical return in conformity with the Regulations.

Jaffa Juice.—Analysis of a sample of this commodity showed sulphur dioxide to be present to the extent of 640 parts per million parts sample, an excess of 290 parts over the quantity permissible. As this produce appears (if window display is to be taken as indicative) to enjoy a fairly large demand the assistance of Food Inspectors in other towns was enlisted. They were asked and very kindly consented to procure for analysis samples of the article, and reported to us the findings of their analysts. The returns showed a divergent tendency, 198, 317 and 341 parts sulphur dioxide per million being the respective figures. The makers were then communicated with and asked if they could explain (1) the excess in the Dundee Sample and (2) the unstable inclinations of other town's activities. Their explanation was, pending the readiness of their own factory which was to be equipped with modern analytical apparatus, an outside firm had been commissioned to do their bottling, and that a batch of untreated juice had, by mistake, been included among the treated, as the sulphur dioxide content of the sample taken here was identical with the original consignments from Palestine. The Dundee stock was returned to the makers.

Details concerning the samples of sausages and mince, shown in Tables (I.) and (III.) as being adulterated, will be found in the part of this report headed "The Public Health (Preservatives, Etc., in Food) Regulations (Scotland), 1925 to 1927."

Margarine, Etc.—244 inspections were made to the various shops or premises in the City where Margarine, Margarine Cheese, or Milk Blended Butter are offered for sale.

Wholesale Dealers.—At the end of the year the premises registered where the business of a Wholesale Dealer in Margarine, Margarine Cheese, or Milk Blended Butter is carried on, numbered 31.

Re-Worked Butter.—Six premises, including five factories—all duly registered—where by way of trade butter is blended or re-worked, were found to be suitable and satisfactory. Eight official samples of re-worked butter were procured during the year, all of which were returned by the City Analyst as genuine.

Milk for Bacteriological Examination.

Samples were purchased or taken for Bacteriological examination as follows:—

Sweet Milk	.....	112
„ (Pasteurised)	.....	6
„ (T.T.)	.....	14
„ (Certified)	.....	24
„ (Sterilized)	.....	2
		<hr/>
		158

These were submitted to Prof. W. J. Tulloch at the University College, the duly appointed Bacteriologist.

The result of the examinations will be found fully dealt with by the Medical Officer of Health in his Report for the year.

Rag Flock Acts, 1911-1928.

Throughout the year six samples of Rag Flock were procured from the establishments of bedding makers and those engaged in the upholstery trade. The amount of chlorine contained in material of this nature must not exceed the proportion of 30 parts per 100,000 parts flock. As will be seen from the undernoted figures

five of the samples complied with requirements of the Acts; in the case of the sixth sample, however, the figure of 130 parts was reported by the Analyst.

On taking the matter up with the manufacturers we learned that the material was in reality " Mill Puff " and was produced in premises using only cotton waste, raw material from the cotton tree, and not material that had at any time been a fabric. Consequently it was considered that it would be a good defence to contend that the material was derived from a natural product and that it did not come within the meaning of the Rag Flock Acts, 1911 and 1928. It is a vegetable product and the chlorides are apparently not derived from animal sources.

One sample to contain	6.66 parts.
One sample to contain	6.66 parts.
One sample to contain	8.33 parts.
One sample to contain	8.00 parts.
One sample to contain	6.00 parts.
One sample to contain	130.00 parts.

Mr Andrew Dargie, B.Sc., A.I.C., Public Analyst, kindly supplies the following interesting figures and particulars :—

" During the year 637 samples of Foods and Drugs were submitted for examination, of which 37 were found to be adulterated, deficient or otherwise not conforming to the prescribed standards or limits. The articles not genuine are as follows :—

Sweet Milk	18
Butter	1
Mince	10
Cream of Tartar	1
Camphorated Oils	3
Vinegar	2
Blackcurrant Pulp	1
Jaffa Juice	1

37

Milk Supply.—The average composition of the milk supply as deduced from the analyses of sweet milk taken under the Food and Drugs (Adulteration) Act, 1928, is as follows :—

Water	87.65
Total Solids	12.35
Fat	3.62
Non-Fatty Solids	8.73

100.00

There is comparatively little difference in the average quality from that of the previous year, and the quality is keeping up to a high standard. The distribution frequencies of butter fat and solids-not-fat are given in Table 1.

TABLE 1.

Butter Fat		Non-Fatty Solids	
per cent.	Frequencies.	per cent.	Frequencies.
Below 2.70	3	Up to 7.99	6
2.70—2.79	2	8.00—8.09	1
2.90—2.99	2	8.10—8.19	2
3.00—3.09	16	8.20—8.29	4
3.10—3.19	15	8.30—8.39	2
3.20—3.29	10	8.40—8.49	—
3.30—3.39	16	8.50—8.59	51
3.40—3.49	20	8.60—8.69	47
3.50—3.59	29	8.70—8.79	39
3.60—3.69	28	8.80—8.89	28
3.70—3.79	19	8.90—8.99	26
3.80—3.89	16	9.00—9.09	11
3.90—3.99	12	9.10—9.19	6
4.00—4.09	14	9.20—9.29	4
4.10—4.19	9	9.30 and over	1
4.20—4.29	4		
4.30—4.39	3		228
4.40—4.49	3		
4.50 and over	7		
	228		

The presumptive minimum limits for Sweet Milk are 3.00% Butter Fat and 8.50% Non-Fatty Solids. Accordingly, 18 samples did not conform; four were deficient in both fat and non-fatty solids, three in fat alone and eleven in non-fatty solids alone.

The lowest fat was 2.42 per cent., which is equal to a deficiency of 19 per cent. Two samples contained more than 5.0% fat, namely 5.12% and 7.12%.

Of the 15 samples deficient in non-fatty solids, the six lowest were 7.02, 7.09, 7.39, 7.52, 7.65 and 7.90 per cent. respectively. There was a presumption of added water in each case, which was strengthened by the fact that the depressions of freezing point ranged from -0.392 deg. C. to -0.513 deg. C. Another three low non-fatty solids had also low freezing point figures.

One interesting point in connection with the remaining six low non-fatty solids, the figures were 8.18% to 8.30%, was a normal result for freezing point test. The depressions were -0.528 deg. to -0.552 deg. C., which compare favourably with the results obtained with genuine milk.

One Goat's Milk contained 3.90% Fat and 9.13% N.F.S.

Butter and Margarine.—33 Butters and 29 Margarines were examined. With the exception of one butter, all these samples were genuine and conformed to the Preservatives in Food, etc., Regulations. The exception contained 16.50 per cent. of water, which is 0.50 per cent above the permitted maximum of 16% of water. In the butters—including reworked butters—the water content varied from 11.44% to 15.63%. In the Margarines the lowest water content was 10.23% and the highest 15.96%. The distribution frequencies were as follows:—

TABLE II.

Water—per cent.	Butter	Margarine
10.00—10.99	—	1
11.00—11.99	2	3
12.00—12.99	—	5
13.00—13.99	8	8
14.00—14.99	17	6
15.00—15.99	5	6
16.00 and over	1	—
	<hr/> 33 <hr/>	<hr/> 29 <hr/>

Mince and Sausages.—23 Mince and 15 Sausages were examined particularly for preservatives. All the sausages conformed to the Preservative Regulations, but ten mince were reported as contraventions, one in September for an excess of sulphur dioxide and the remaining nine for containing preservative during the prohibited period.

An analysis of these figures proves that a number of butchers still persist in adding preservative to Mince during the period October to May, although they know perfectly well it constitutes an offence. Two of the samples in October and November contained over 700 parts per million of sulphur dioxide. In Table III. will be found the frequency distribution.

TABLE 3.

Parts per million Sulphur Dioxide	Mince.	Sausages.
Absent	8	2
Up to 99 parts	3	7
100—199 parts	3	2
200—299 parts	2	1
300—399 parts	3	1
400—499 parts	1	2
500—599 parts	1	—
700—799 parts	2	—
	—	—
	<u>23</u>	<u>15</u>

Condensed Milk.—5 Full Cream Sweetened and 14 Sweetened Condensed Skimmed Milks were examined. In the Full Cream samples, the Milk Fat varied from 9.02 to 9.91 per cent. and the total Milk Solids from 31.16 to 32.85 per cent. In the Machine Skimmed Samples the lowest Total Milk Solids was 27.06 per cent. and the highest 29.58 per cent., whilst the Milk Fat averaged 0.35 per cent. All these milks conformed to the Condensed Milk Regulations.

Spices.—White Pepper 21, Black Pepper 3, Ground Ginger 10, Cinnamon 8, Mustard 4, 1 Mixed Spice and 1 Curry Powder. The average percentages of Ash were as follows:—White Pepper 0.81, Black Pepper 4.13, Cinnamon 4.16, Ground Ginger 3.86.

These are normal results, and all the samples also conformed in other respects.

Starchy Foods.—Whole Rice 18, Ground Rice 12, Pot Barley 9, Oatmeal 7, Flour 6, Tapioca, Sago, etc., 15. The Pot Barley and 9 Whole Rice were free from Talc facing, the highest amount found in the Rice being 0.32 per cent., which is well within the provisional maximum of 0.50 per cent. All the remaining samples were of normal composition.

Cream of Tartar.—17 samples were examined; 16 were of high-class quality, being over 99 per cent. of Potassium Hydrogen Tartrate. The remaining sample was not genuine, but contained 11.20 per cent. of Sodium Bicarbonate.

Oils and Fats, 26.—These included 8 Lard, 7 Camphorated Oil, 3 Olive Oil, 2 Castor Oil, 2 Almond Oil. All these were genuine with the exception of three camphorated oils which contained respectively 0.81%, 1.30% and 16.03% w/w of Camphor, whereas genuine camphorated oil should contain not less than 19.00% w/w of Camphor. The deficiencies of camphor were therefore 18.19% and 17.70% and 2.97 %.

Vinegar.—Of the 5 samples examined two were found to contain copper to the extent of 8 and 18 parts per million. Both were reported as contravening the Food and Drugs (Adulteration) Act.

Jams and Jellies 5, Pulp 1, and Fruit Juice 1.—The Jams and Jellies contained more than 68.5 per cent. of soluble solids and conformed to the Preservatives Regulations. The Black Currant Pulp contained sulphur dioxide to the extent of 1,995 parts per million, being 495 parts in excess of the maximum, while the Jaffa Juice contained 640 parts per million of sulphur dioxide, which is 290 parts per million in excess of the amount permitted by the Regulations.

Cheese, 4 samples.—One of these contained 10.31 per cent. of Milk Fat and 57.60 per cent. of water. This was a skimmed milk cheese, the price of which was five pence per pound. It was reported as genuine.

Tinned Foods.—These Tinned Foods were examined for poi-

sonous metals and found to contain Tin in the proportions stated below—in grains per pound.

Sild (8), 0.22, 0.24, 0.38, 1.04, 1.04, 1.26, 1.84, 1.94.

Salmon (3), 0.32, 0.48, 0.70.

Sardines (3), 0.15, 0.15, 0.17.

Brisling (1), 0.36.

Tomato Puree (2), 0.78, 0.87.

Peeled Tomatoes (1), 0.31.

Baked Beans (3), 0.62, 0.84, 1.01.

Mandarin Oranges (2), 0.28, 0.57.

Game Pate (1), 0.12.

Spaghetti (1), 0.12.

Grape Fruit (1), 1.15.

Peaches (2), 0.80, 0.31.

Pineapple (1), 0.12.

Veal, Ham and Tongue (1), 0.36.

Green Peas (3), 0.10, absent, absent.

Metals were found to be absent in the following articles:—
Kipper Snacks, Fillets of Anchovies, Dressed Crab (3), Fish Paste (2).

There is no statutory limit for poisonous metals in foods, but as far as the presence of Tin is concerned a maximum of 2 grains of tin per pound is adopted for administrative purposes. All the articles above mentioned conformed and were reported as genuine.

Miscellaneous Articles, including Coffee, Cocoa (18), Tartaric Acid, Citric Acid, Baking Soda (9), Pickles and Sauces (5), Table Jelly (4), Orange Stillade (2), Glycerine (2), Mince Meat (1), Syrup (1), Treacle (1), Honey (1), Canned Beer (1), Iodine Tinct. (1), Tiny Prawn (1), Cheese and Tomato Paste (1), Jellied Veal (1), Chicken, Ham and Tongue (1). All these articles were found to be genuine in all respects.

Fertilisers and Feeding Stuffs Act, 1926.—Seven Informal and one Official Samples were submitted for analysis.

Informal—

Dried Blood—Conforms to guarantee.

Bone Meal—Conforms to guarantee in Nitrogen, showing a deficiency of Phosphoric Acid (P_2O_5), 3.27% below guarantee.

Basic Slag—Conforms to guarantee.

Carbonate of Lime—Conforms to guarantee.

Palm Kernel Meal—Conforms in Albuminoids but shows an excess of Oil 0.29 per cent. above guarantee.

Dairy Nuts—Conforms in Oil, Protein and Fibre.

Mazovo—Conforms in Oil and Proteins.

Official—

Bone Meal—Conforms in Nitrogen and Phosphoric Acid.

Poisons Rules, 1935, 4 Samples.—Laundry Bleach, Wonder Worker, Ammonia Powder and Ammonia were examined and found to conform to the provisions of the Poisons Rules.

Rag Flock Acts, 1911 and 1928.—Six samples of Rag Flock were submitted for examination, and of these one failed to conform to the maximum limit of 30 parts of soluble chlorides per 100,000 parts of Flock. This sample contained 130 parts chlorine per 100,000, being 100 parts above the maximum permitted by the Act.

On enquiries being made, it was found that this Flock was made entirely of cotton waste obtained from cotton before it is spun, woven or in any way manufactured into fabrics. There is no definite proof that the Chlorine comes from a harmless source, but as the material was manufactured from a natural product it was considered advisable not to take proceedings against the firm."

Fertilisers and Feeding Stuffs Act, 1926.

As mentioned in the Report of last year, the duties pertaining to sampling under this Act and Regulations of 1932 were transferred to the Sanitary Inspector and his staff.

During the year under review sampling of Feeding Stuffs and Fertilisers was carried out, 8 samples being procured—7 informal and 1 formal. These were:—

Palm Kernel Meal;

Dairy Nuts; and

Maize Meal.

Dried Blood;

Bone Meal;

Basic Slag; and

Carbonate of Lime;

all of which conformed to the guarantee under which they were sold with two exceptions—the Palm Kernel Meal having an excess of Oil (0.29%) and the Bone Meal being deficient in Phosphoric Acid to the extent of 3.27%.

The question of the deficiency in the Bone Meal was taken up with the manufacturers, who characterised the shortage as being not merely unusual but almost unprecedented in their experience and were at a loss to explain the discrepancy. They took samples of their produce from the stocks held by various sellers and had them analysed, and in each instance the reports were in conformity with the guarantee. The local stocks were formally sampled, and on analysis turned out to be genuine.

Pharmacy and Poisons Act, 1933, etc.

At the close of the year our Register showed 115 sellers permitted to deal in what are known as Part II. Poisons.

The responsibility for the administration of this most involved Act was laid at our door during 1936, and it is no exaggeration to say it is in a category by itself as regards intricacy. Those whose duty it is to impose its functions will fully appreciate all the explanatory memorandums issued by the Government in an effort to lighten their task. Throughout the year our Inspectors kept the premises of sellers under observation to ensure there was no contraventions regarding the labelling of certain articles, and where such occurred steps were taken to remedy any shortcomings.

Four Samples were obtained during the year, a Bleach, Liquid Soap, Powdered and Liquid Ammonia, all of which conformed to the requirements of the Act, or in the case of the liquid ammonia, the declaration on the label. Regarding the liquid ammonia, analysis showed it to contain 5.94% w/w. The makers were communicated with and informed that ammonia of such strength was available for sale only by Listed Sellers. They undertook to supply only those sellers entitled to trade in certain poisons with ammonia of such quality, and to collect from unlisted sellers any stocks which did not contain less than 5% w/w.

Shops Acts, 1912/1936.

The terms of Section 10 of the Act of 1934 have received and continue to receive our closest attention. The lack of sanitary accommodation, washing and heating facilities are the deficiencies most frequently encountered, and towards remedying these defects notices in terms of the Section aforesaid have been served on both shop-keepers and property owners, where all or either of such facilities are wanting. The figures showing the outcome of these notices are not to be taken as indicating an indifferent attitude to

our requests. As can be easily imagined, the introduction of a water-closet into certain shops involves a considerable amount of reconstruction of the premises. It has also to be deliberated where best to instal the conveniences and a favourable time chosen for such work so as to avoid interfering with the smooth running of a business. So far, in consequence of our action, the undernoted works have been carried out :—

- 9 Water-Closets have been installed within Shops;
- 3 Water-Closets have been installed in external positions for the use of shop assistants;
- 8 Shops have been provided with heating facilities; and
- 1 Shop has been provided with facilities for taking meals.

It is hoped that 1938 will show a marked advance on these figures. Of course, apart from the aforesaid activities, the usual supervision of shops was carried on as hitherto, 3,771 visits being made. As has been the custom in the past, a system of street patrol was put into force when felt that such was required, 81½ hours being devoted to this form of control.

The bulk of contraventions discovered were of little consequence and numbered 280. They might be explained, though probably not excused, as due to forgetfulness on the part of the shopkeepers omitting to cover goods in shops where various closing times had to be observed.

Special mention may be permitted of three cases reported for prosecution; two were contraventions of the Dundee Butchers' Closing Order which raised a question of long standing—"Are pork sausages butcher meat, and is a pork butcher a butcher?" The Sheriff held in the first case that "pork sausages were butcher meat" and "a pork butcher was a butcher," both coming within the terms of the Order already mentioned. No ruling, however, was obtained as to the sale of butcher meat sold in shops other than butchers, as this question was not at issue in the particular instance. The accused was found guilty but admonished.

The other case, against a grocer for selling pork sausages, was not accepted by the Procurator Fiscal, he being of the opinion that no contravention had been committed as the Butchers' Closing Order did not apply to grocers' shops. Thus are anomalous positions created. One case of 3 contraventions by a Coal Merchant against the Dundee Coal Merchants' Weekly Half-Holiday Order, and Section 9 of the Shops Act, 1912: Section 1 (2) of the

1912 Act and Section 7 of the Shops Act of 1934. The accused pled not guilty to the first charge and guilty to the remaining two charges. After hearing proof the Sheriff held him guilty of the first charge and admonished him. The Sheriff in his interlocutor held that a lorry was not a "place" in terms of Section 9 of the Shops Act, 1912, but that it was in a place and the restrictions governed by that clause accordingly applied in this instance. He considered, it being a test case, an admonishment would suffice. To the remaining charges accused pleaded ignorance of the law, and, as ignorance is no excuse, a fine of 15s was imposed.

For contraventions of the Shops Acts and relevant Orders it was necessary to report for prosecution 23 cases. A resume of the results of these prosecutions is given hereunder, and included therein are the cases referred to above.

Shops (Hours of Closing) Act, 1928—14 cases. Eight were fined 15s; 1, 20s; 1, 25s; 3, 40s; and 1, 60s.

Shops Acts and Closing Orders made thereunder—8 cases. Four fined 15s; 1 fined 20s; 1, guilty, admonished; and in two instances proceedings departed from.

Shops Act, 1934.—A case involving three breaches of this Act was forwarded to the Procurator Fiscal. The charges were: working a young person above the number of hours permitted; failure to keep in prescribed form and manner a record of hours of employment, rest and meals hours of the assistant; and employing without a break of twenty minutes the assistant on the day of her half-holiday, i.e., she worked from 7 a.m. to 1 p.m. continuously.

Owing to lack of corroborative evidence the first and last charges were dropped and the second proceeded with; for this contravention a fine of 30s was imposed.

In the list of proceedings under the Shops (Hours of Closing) Act, 1928, some of the cases embraced more than one charge. It will be noted that a few of the fines imposed were fairly substantial, but not in the least disproportionate as some of those so fined had failed to take a lesson from previous experiences of a similar nature.

Places for Public Refreshment.—Such premises numbered 269 at the close of the year and all were found to be conducted in accordance with the appropriate Bye-Laws.

The terms of Section 35 of the Dundee Corporation Order, 1935, require all persons manufacturing, vending or dealing in

Ice Cream to be registered by the Local Authority and similarly all premises wherein Ice Cream is manufactured or sold must also be registered. At the end of the year 224 persons and 277 premises were on the Register.

Theatres, Cinemas and Dance Halls.

The above places of amusement are under the jurisdiction of this Department so far as the provision of sanitary conveniences, ventilation and general cleanliness are concerned, and to ensure that the fittings and premises are kept in order they were visited on 339 occasions.

Our duties under this head also extend to smaller halls in which amateurs present short plays, etc. Before permission for such performances is given an inspection is made to make certain that the hall and the sanitary arrangements are suitable.

Port Inspection.

There was a decided drop in the number of ships arriving at this port from foreign countries. The number of arrivals was 367—a decrease of 33 on the figures for the previous year. Ships engaged on the coasting trade numbered 754—5 more than in the previous year. The aggregate number of ships, foreign going and coasting, was 1,121 representing a net tonnage of 931,730.

Arrivals from foreign ports known to be infected amounted to 102. Of these 16 came direct, and the measures prescribed in the Port Sanitary Regulations (Scotland), 1933, were applied. The remainder, having already called at one or other British port, had been similarly dealt with; nevertheless they were all kept under close observation while in Dundee. 849 visits of inspection were made by the Port Sanitary Officer.

Cargoes.

There was little change in the nature of cargoes discharged at the Port during the year. From India—Jute, Gunnies, Cotton, Tea, Desiccated Cocconut, Linseed, Oilcake and Pig Iron. Mediterranean Ports—Esparto Grass, Phosphates, Pyrites, Cork Shavings, Oil Cake and Cotton Seed. Baltic and White Sea Ports—Flax, Pulp, Paper, Slates, Matches, Timber and partly manufactured Timber articles. Other Continental Ports—Margarine, Butter, Cheese, Sugar, Condensed Milk, Fruit Pulp, Vegetables, Peas, Ground Rice, Glucose, Flower Bulbs, Shrubs, Fruit Trees, Fertilizers, Fancy Goods, Steel and Iron Bars, Electric Cables and Oil. North American Ports—Cheese, Flour, Fruit, Tinned Goods,

Cereal Foods, Pitch, Ochre, Oak and Maple Flooring, Pitch Pine Logs, Wire and Binder Twine. West Indies—Crude Oil and Sugar. Eire—Beet Pulp.

Nuisances.

There was an appreciable decrease in the number of nuisances discovered, 156 as against 385 for the preceding year. Abatement was secured in all cases while the vessels were in Port.

Vermin Infestation.

Inspection revealed 3 vessels having bug infested forecastles. In one case fumigation was carried out by the Port Sanitary Officer. In the other two cases the quarters were disinfested and cleansed by the ships' crews, to our satisfaction.

Deratisation.

In terms of Article 28, International Sanitary Convention, and Article 19, Port Sanitary Regulations (Scotland), 1933, there were 32 vessels inspected, and in every instance a Deratisation Exemption Certificate was granted. Where evidence of rat infestation is found aboard a ship instructions are given to set traps in preference to using poison.

The Harbour Trustees continue their policy of making the sheds and warehouses rat proof by laying down cement concrete floors. Their actions in the destruction of rats and rat harbourages never lag, and Dundee berths and moorings are often favourably commented upon by officers of visiting ships.

The Parrots (Prohibition of Import) Regulations (Scotland), 1930.

There were two occasions involving four birds. Written declarations were given by the owners not to land the birds at this Port.

Table of Inspections, etc.

Total number of Verbal Intimations	361
Total number of Rat Notices issued	6
Number of Visits to Ships	849
Number of Ships from Infected or Suspected Ports (direct)	16
Number of Ships from Infected or Suspected Ports (indirect)	86
Number of Ships from Free Ports (direct)	113
Number of Ships from Free Ports (indirect)	152
Total number of Ships from Foreign Ports	367

Nuisances and defects attended to	156
Forecastles Cleaned	24
Messrooms Cleaned	12
Galleys and Store-rooms Cleaned	6
Accumulations of Food Refuse	8
Choked or Defective W.C.'s	13
Dirty W.C.'s	19
Discharge of Foul Water on Quay	28
Ventilators Obstructed	36
Excessive Smoke Emission from Vessels ...	3
Rat Refuges Destroyed	7
	—156

In addition the following work was carried out while the vessels were in Port:—

Fresh Water Tanks Cleaned Out	28
Forecastles Washed or Painted	61
Bathrooms or Wash-Places Painted	42
Galleys Washed or Painted	4
W.C.'s Painted	46

1. Amount of Shipping entering the Port in 1937:—

	Number	Tonnage
(1) Foreign,	367	640,299
(2) Coastwise,	754	291,431
	<hr/>	<hr/>
Totals,	1,121	931,730

2. No. of Vessels subjected to measures of Rat Destruction in 1937:—

“ A.”

No. of Vessels subjected to Measures of Rat Destruction ...	21
On Ships*—No. of dead rats recovered	80
No. of rats examined bacteriologically	Nil
No. of rats found infected with Plague	Nil
On Shore*—No. of rats destroyed (other than on ships) ...	188
No. of rats examined bacteriologically	Nil
No. of rats found infected with Plague	Nil

*Species of rat recovered—Common Grey and Black Rats.

"B."

No. of Vessels fumigated by SO ₂	Nil
No. of dead rats recovered	Nil
No. of Vessels fumigated by HCN	Nil
No. of dead rats recovered	Nil
No. of Vessels in which poisoning, etc., was employed	17
No. of dead rats recovered	80
No. of Deratisation Certificates issued	Nil
No. of Deratisation Exemption Certificates issued	32
3. No. of Vessels (included in (2) above) deratised before discharge of Cargo	Nil

Section 164 of the Burgh Police (Scotland) Act, 1892.

PROVISION AND RENEWAL OF RAIN WATER SPOUTS AND
DOWNPIPES.

Under the above Section the following work was executed,
viz. :—

Number of Properties where the rain water spouts and conductors have been overhauled, renewed or otherwise repaired.	Lineal feet of new rain water conduct- ing channel rhones or gutter pipes used in the renewing or repairing of the same.	Lineal feet of new rain water conducting or downfall pipes used in the same way at the different proper- ties.
560	8,513	2,971

General Prosecutions.

The prosecutions for the year were as under :—

Burgh Police (Scotland), Act, 1892, Sec. 164	Preservatives in Food (Mince)	Shops Acts, 1912/1934	Food and Drugs (Adulteration) Act (Milk.)
1	7	21	2
Houses Let in Lodgings Bye-Law 4			Merchandise Marks Act, 1887
1			1*

Total — 33.

*After authority from H.M. Board of Trade.

Detailed particulars of each are given under the various
heads.

I am, Gentlemen,

Your Obedient Servant,

ALEX. A. RUSSELL,

Chief Sanitary Inspector

